Fall 12-2015

The Question of SLIM | A Critical Look at Manhattan's Recent Trend Towards Slenderness

Raymond Sova

The Question of SLIM
A Critical Look at Manhattan's Recent Trend Towards Slenderness

Manhattan's real estate market since the turn of the 20th century to present day can be characterized as an extreme optimization of the economical elements of architecture. Most of the buildings in Manhattan's diverse and complex skyline share a tenacious desire to maximize the profitability and feasibility of a site while minimizing overall building expenditure. This concept is defined in Koolhaas's 'Delirious New York,' as the relationship between "the Needle" and "the Globe." Seemingly immeasurable wealth and investment have given rise to a new sub-typology of super-tall strikingly skinny (Slim) residential skyscrapers that may very well result in the demise of Manhattan's real estate market. In relation to the writing of Koolhaas, Slimness can be characterized as the epidome of "the Needle." The emergence of Slimness in Manhattan is evidence that a typological paradigm shift is currently in motion. In a much broader sense, Slimness is bringing to light just how much control finance exercises over architecture in all aspects of the architectural profession. Slimness is proving that high-rise architecture in Manhattan is becoming increasingly oppressed as a result of the developer driven mindset operating within the "confines" of New York City's negligent real estate policies. If left unchecked, this oppression will inevitably worsen until finance ruptures the urban tissue of Manhattan beyond all repair.

The sudden emergence and rapid proliferation of Slim condo towers within the context of Midtown Manhattan are of specific interest to this thesis exploration. Their apparent disregard for any unintentional or intentional consequence have become critical points of departure for research, speculation, and intervention. This work also serves a commentary on how Slimness is representative of an extreme exploitation of the inherently flawed relationship between finance and architecture. This thesis contends that Slimness is exploiting architecture to a point where it is driven solely by finance, and consequentially is formally, socially, politically, economically, and environmentally irresponsible. In order to both analyze and criticize the polemical discussion that Slimness has brought into focus, a series of ironic and speculative scenarios are proposed within the context of the financial dystopia that Manhattan may someday become. The context of this thesis is Midtown Manhattan, specifically along W 57th Street, also known as "billionaire's row."

The body of work that will comprise this thesis begins with a series of fantastical renderings that have formally and programmatically tampered with the existing structure of 432 Park Avenue. These wildly fanciful renderings are then paired with a series of hyper-real architectural drawings and models that will attempt to illustrate an architectural exposé depicting the true nature of Slimness as it exists today. The goal of this thesis is not to propose solutions for the issues that Slimness perpetuates, but rather to evaluate them from a polemical point of view, and to exaggerate them to a point where they become playfully obvious.

Advisor: Roger Hubeli

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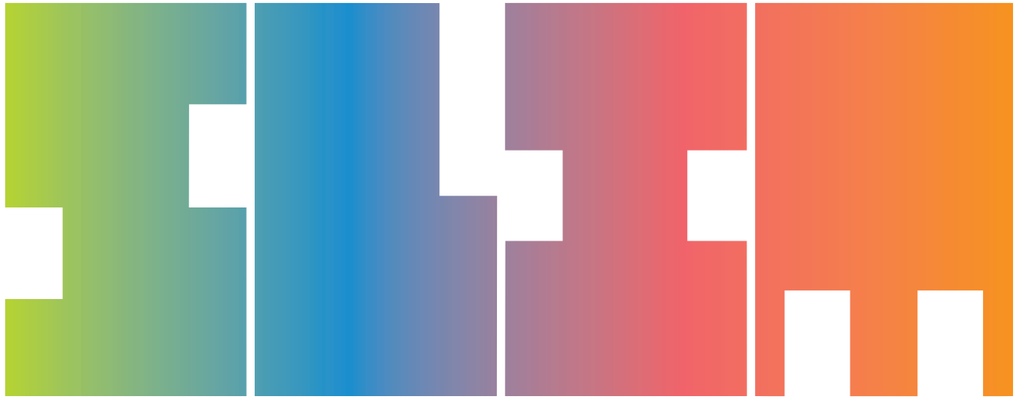
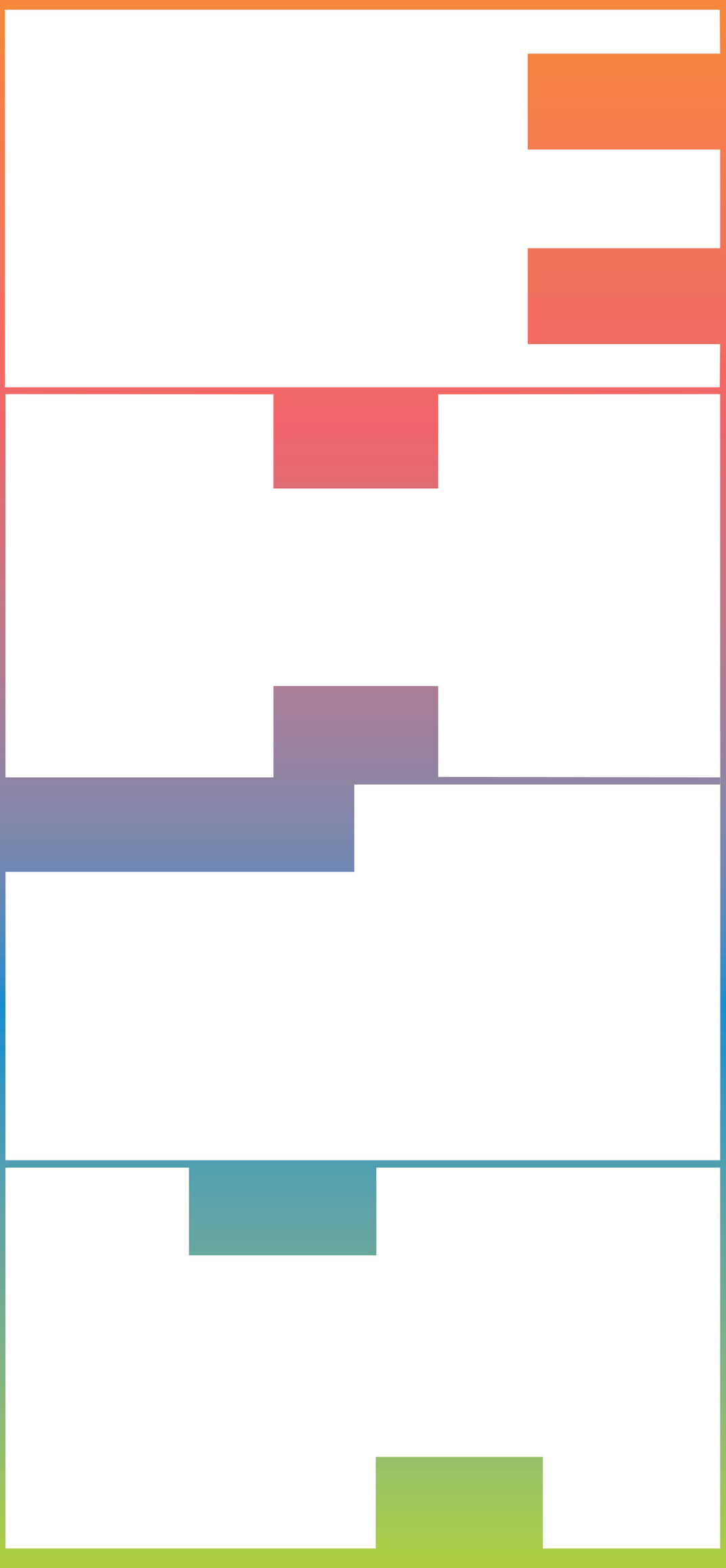
The Question of



[AND ITS UNTIMELY DEMISE]

Raymond Sova | ARC 998 - Thesis | Advisor: Prof. Hubeli | Thesis Booklet | 12.18.2015



KYSCRAPER DESIGN AND CURRENT TRENDS

ONGEVITY AND EVOLUTION OF NYC SKYSCRAPERS

NSTANCES OF SLIMNESS IN THE WORLD TODAY

ACROECONOMICS AND SKYSCRAPER DEVELOPMENT

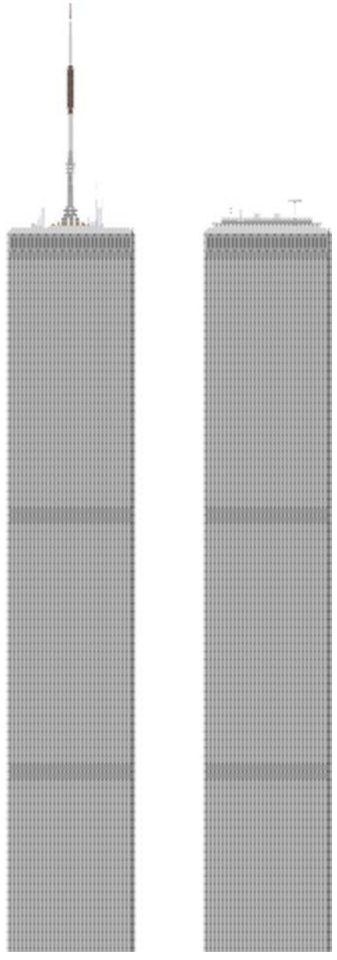
There is a new and exciting sub-typology emerging within the field of architecture, and it has manifested itself in the form of slimness. The architecture of slimness has emerged in part because of the rapid proliferation of structural systems within the past decade, and in part because of issues of incredibly dense urban contexts. These two factors have given rise to a new breed of buildings that are immensely tall and strikingly skinny. The number of skyscrapers constructed has increased exponentially following the turn of the 20th century, and this trend is expected to continue in decades to come.

The ultimate benefit of skyscrapers is the ability to maximize the building's programmatic potential while minimizing the amount of land that is used in its construction.

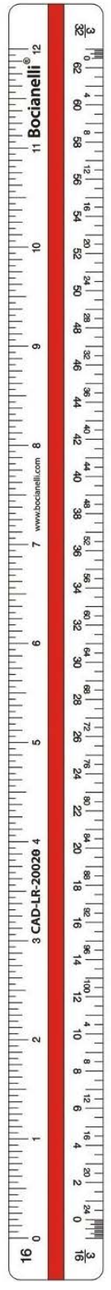
In other words, skyscrapers offer the greatest potential for change in dense urban contexts with minimal impact to existing infrastructure. Given the current trend of slimness in architecture, this relationship between maximizing program and minimizing site coverage is being put to the ultimate test. "Slenderness" is a term that is borrowed from the field of engineering that is generally used to describe a building that has a base to height ratio around 1:10.

In 1971 the two towers of the World Trade Center were the tallest buildings in the world at 1,368' with a base of 209' on each side, giving it a slenderness ratio of just under 1:7.

Within the current trend of slimness in architecture there are skyscrapers that have slenderness ratios of 1:20 or greater, a feat that was simply not possible in past decades. The topic of general interest in this thesis exploration is to examine the recent evolution of skyscrapers as a typology, and more specifically how the phenomenon of slimness will impact this evolutionary process in years to come.



1:7



1:12

PERCENTAGE OF EARTH'S SURFACE COVERED BY CITIES

2%

PERCENTAGE OF GLOBAL POPULATION LIVING IN CITIES

10%

1900

PERCENTAGE OF GLOBAL POPULATION LIVING IN CITIES

53%

2000

PERCENTAGE OF GLOBAL POPULATION LIVING IN CITIES

75%

2050

*Urbanization statistics based on studies published in "Living in the Endless City," 2011

SKYSCRAPER DESIGN AND CURRENT TRENDS

"In the overheated speculation of the 1920's, as land prices rose, towers grew taller. Or should the order be, as skyscrapers grew taller, land prices rose?"

-Carol Willis, Founder and Director, Skyscraper Museum

1.) LAND PRICES AND RETURN ON INVESTMENT

It is no secret that a vast majority of tall buildings are located in city centers, where land is much more costly than land outside of the city. This drives architects and developers to be as economical as possible by producing as much square footage as possible for any given site. Rather than acquiring more land for a project horizontally, it is much more economically feasible to build vertically in dense urban contexts.

2.) USE OF BUILDINGS AS BRANDING TOOLS

Throughout the history of skyscrapers it has been common to use tall buildings as branding mechanisms for companies or cities (ie. The Chrysler Building, The Empire State Building). Often the taller a building is, the more prestige and vitality it displays on a global stage. Instead of branding company names or national identities, slim condo towers serve as branding mechanisms for the wealth or capital, and are devices that can be used to promote vertical gentrification.

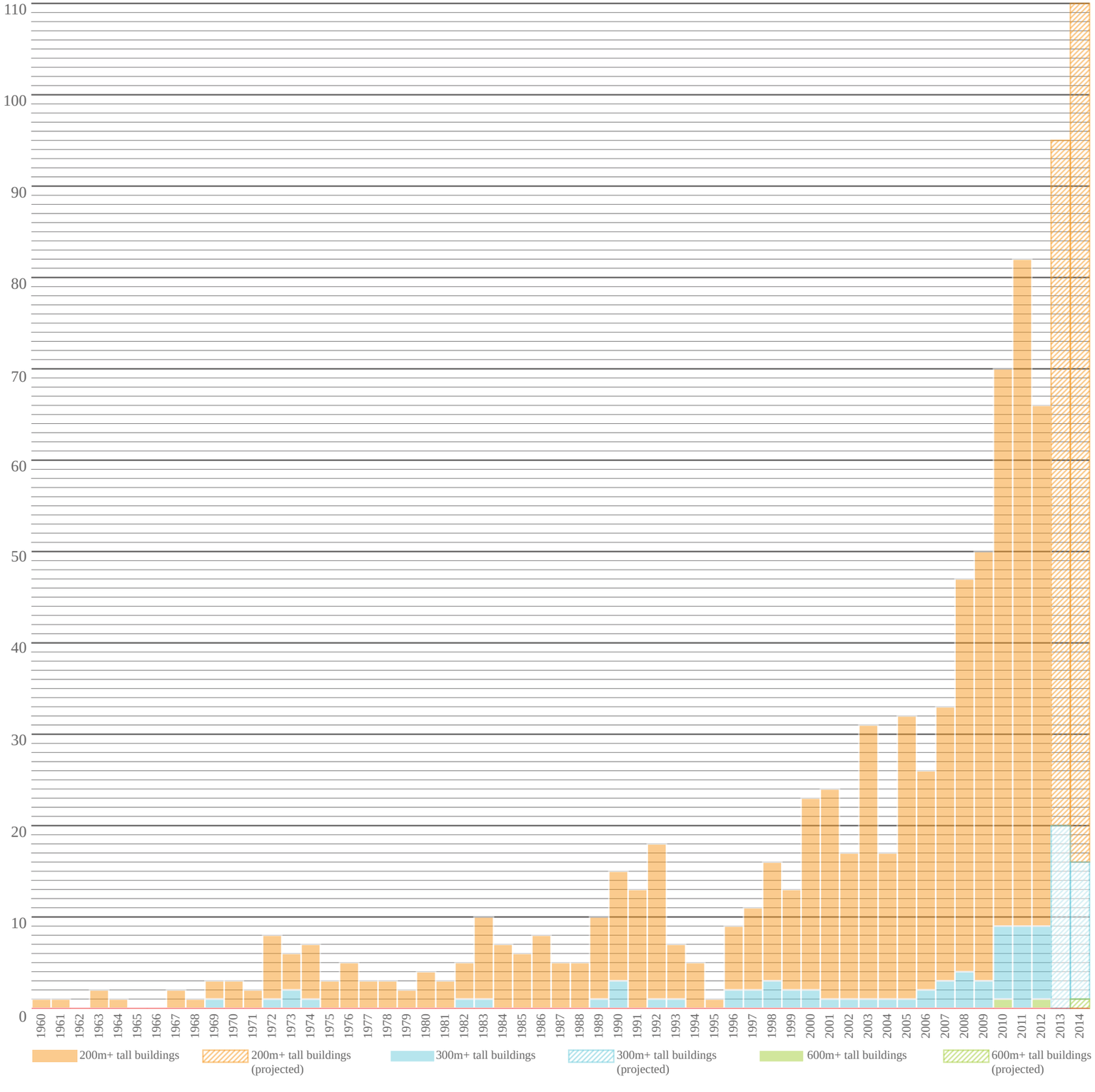
3.) RAPID URBANIZATION AND CLIMATE CHANGE

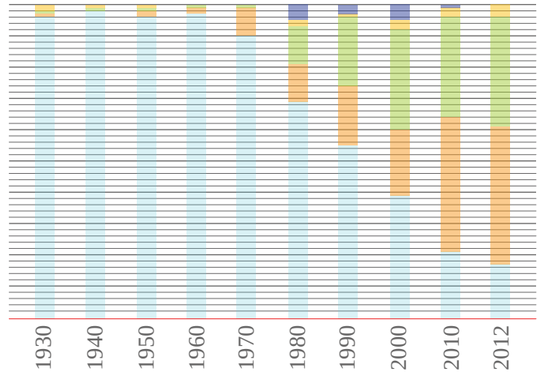
It is estimated that 200,000 people globally are urbanizing daily, which creates an estimated need for a new city of one million inhabitants each week. Most of this urbanization is happening in developing countries with large populations, such as China, India, Brazil, and Indonesia. This process of urbanization is happening in the United States as well as other developed countries also. Such a rapid urbanization puts a massive strain on existing urban infrastructure, which in turn provides added incentive for cities to build into the sky rather than out into the landscape.

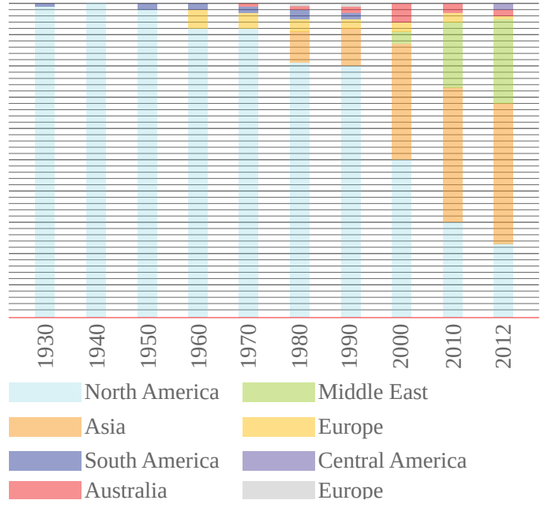
THE PROS AND CONS OF SLIM

THE STRENGTHS AND WEAKNESSES OF BUILDING UP INSTEAD OF OUT

HIGH ENERGY CONSUMPTION (-)	(+) POTENTIAL FOR NATURAL HEATING AND COOLING STRATEGIES
IMPACT ON URBAN SCALE (WIND TUNNELS, OVERSHADOWING, ETC.) (-)	(+) EFFICIENT LAND USE AND POPULATION CONCENTRATION
GREATER DEMAND ON EXISTING INFRASTRUCTURE (-)	(+) REDUCED SIZE OF INFRASTRUCTURE NETWORKS
ANTI-SOCIAL INTERNAL ENVIRONMENT (-)	(+) COMMUNAL SPACE AWAY FROM TRAFFIC, POLLUTION, ETC.
WIND LOADS / STRUCTURAL CONCERNS (-)	(+) HIGH POTENTIAL FOR WIND ENERGY
LOW AMOUNT OF LIVEABLE FLOOR AREA (-)	(+) INCREASED ACCESS TO AIR, VIEWS, AND NATURAL LIGHT





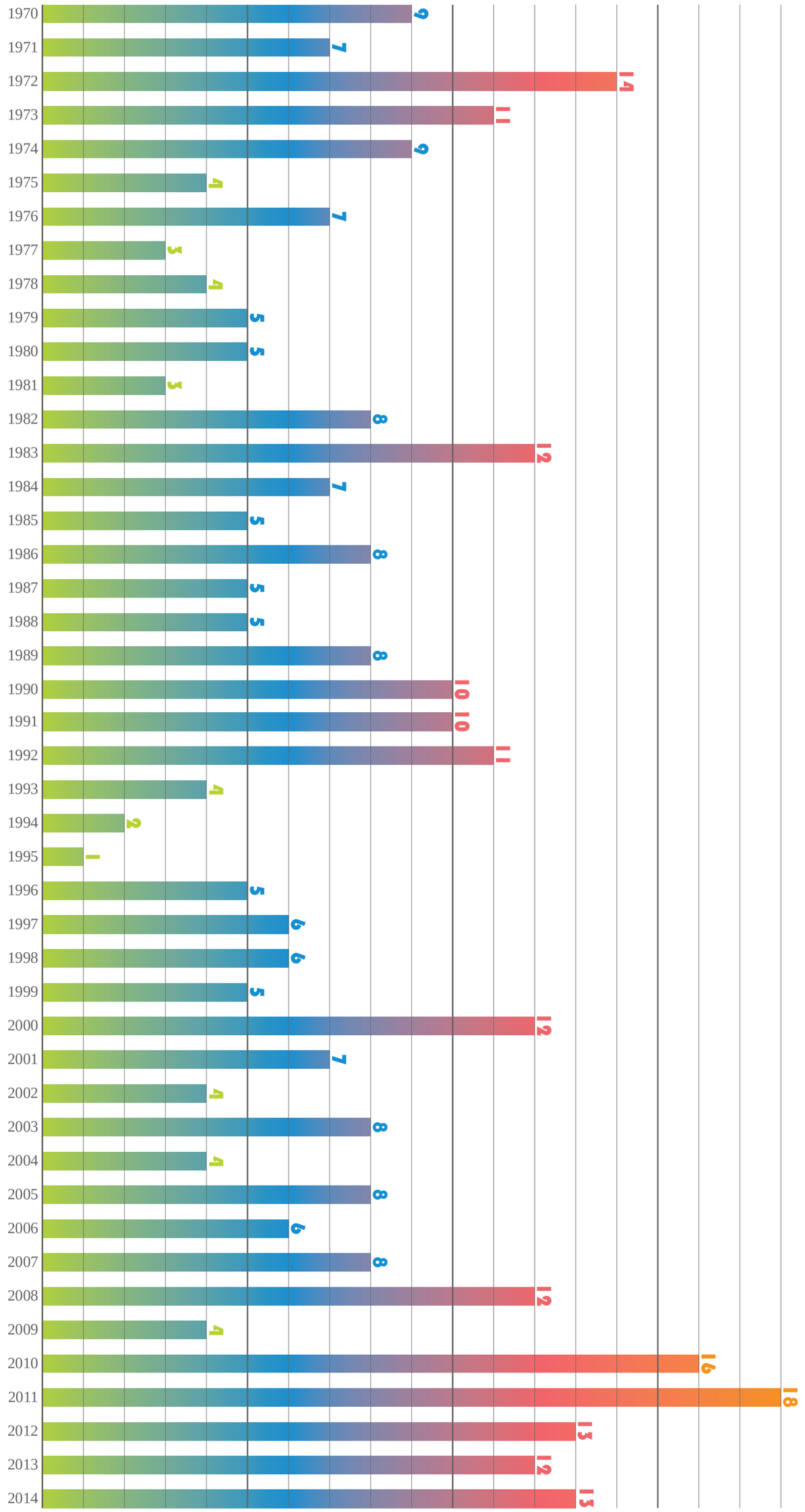


CURRENT TRENDS IN SKYSCRAPERS

OVERALL HEIGHT, USE, CONSTRUCTION, AND LOCATION

*Statistics collected and interpreted by the Council on Tall Buildings and Urban Habitat

05



CHALLENGING THE WORLD'S TALLEST

NUMBER OF BUILDINGS ENTERING THE WORLD'S TALLEST LIST BY YEAR

*Statistics collected and interpreted by the Council on Tall Buildings and Urban Habitat

2014'S TALLEST BUILDINGS

TOP 20 TALLEST BUILDINGS COMPLETED AROUND THE WORLD

*Statistics collected and interpreted by the Council on Tall Buildings and Urban Habitat

1)
WORLD TRADE CENTER

NEW YORK CITY, USA
451 m, (1,776 ft)

2)
WORLD TRADE CENTER ABU DHABI - THE RESIDENCES

ABU DHABI, UAE
381 m, (1,251ft)

3)
THE WHARF TIMES SQUARE I

WUXI, CHINA
339 m, (1,112 ft)

4)
WUXI SUNING PLAZA I

WUXI, CHINA
328 m, (1,076 ft)

5)
WORLD TRADE CENTER

NEW YORK CITY, USA
451 m, (1,776')

6)
BURJ RAFAL

RIYADH, SAUDI ARABIA
308 m, (1,010 ft)

7)
ONE 57

NEW YORK CITY, USA
306 m, (1,005 ft)

8)
WUXI MAOYE CITY MARRIOTT HOTEL

WUXI, CHINA
304 m, (997 ft)

9)
HEUNG KONG TOWER

SHENZHEN, CHINA
303 m, (994 ft)

10)
TORRE COSTANERA

SANTIAGO, CHILE
300 m, (984 ft)

11)
ABENO HARUKAS

OSAKA, JAPAN
300 m, (984 ft)

12)
4 WORLD TRADE CENTER

NEW YORK CITY, USA
299 m, (977ft)

13)
R&F YINGKAI SQUARE

GUANGZHOU, CHINA
296 m, (972 ft)

14)
BUSAN INTERNATIONAL FINANCE CENTER

BUSAN, SOUTH KOREA
289 m, (948 ft)

=15)
SOOCHOW INTERNATIONAL PLAZA - WEST TOWER

HUZHOU, CHINA
288 m, (945 ft)

=15)
SHOOCHOW INTERNATIONAL PLAZA - EAST TOWER

HUZHOU, CHINA
288 m, (945 ft)

17)
WORLD TRADE CENTER ABU DHABI - THE OFFICES

ABU DHABI, UAE
278 m, (912 ft)

18)
LOTTE CENTER

HANOI, VIETNAM
272 m, (892 ft)

19)
AURA AT COLLEGE PARK

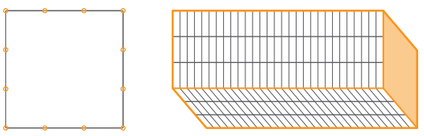
TORONTO, CANADA
272 m, (892 ft)

20)
FORTUNE FINANCIAL CENTER

BEIJING, CHINA
267 m, (876 ft)

COMPOSITE FRAME

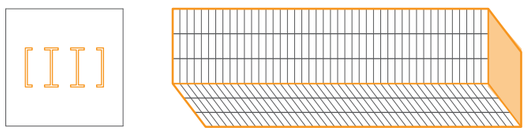
30 STORIES



400'

CONCRETE SHEAR WALL - STEEL GRAVITY COLUMNS

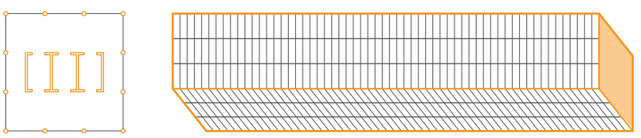
45 STORIES



600'

CONCRETE SHEAR WALL - COMPOSITE FRAME

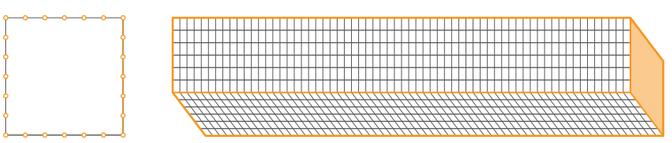
60 STORIES



800'

COMPOSITE TUBULAR FRAME

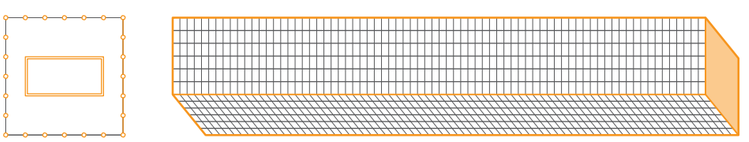
65 STORIES



870'

COMPOSITE TUBE - IN - TUBE

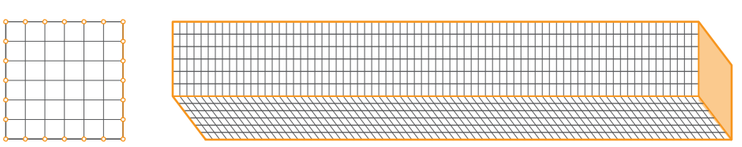
75 STORIES



1000'

COMPOSITE MODULAR TUBE

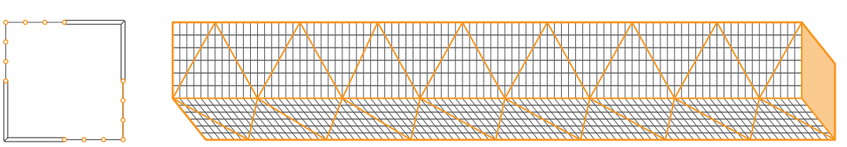
75 STORIES



1000'

COMPOSITE DIAGONAL BRACED TUBE

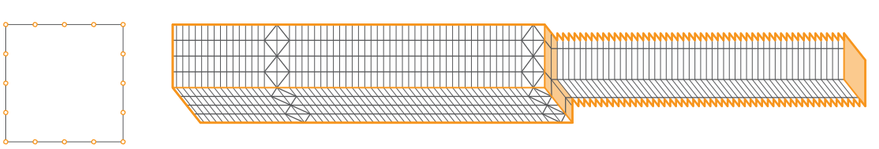
90 STORIES



1200'

COMPOSITE BELT OUTRIGGER - STAYED MAST

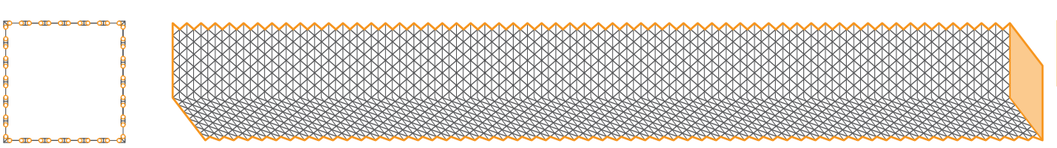
110 STORIES



1460'

COMPOSITE DIAGONAL MESH TUBE FRAME

120 STORIES

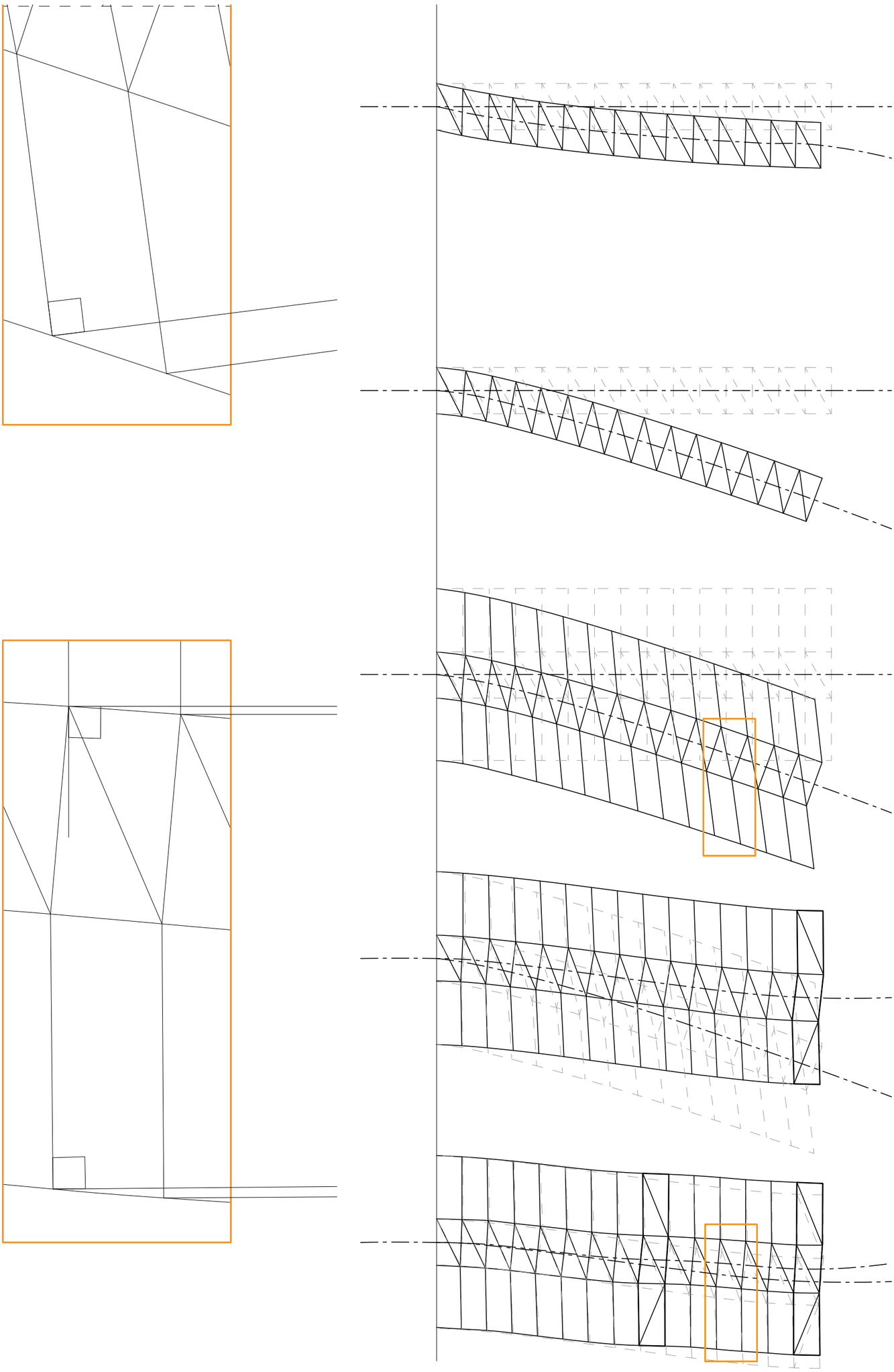


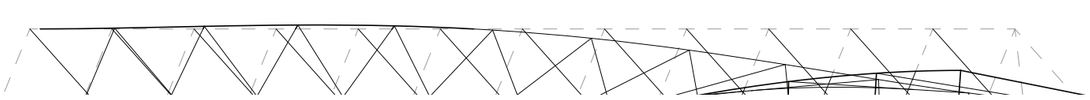
1600'

COMPOSITE CONSTRUCTION TYPES

GENEERAL CONCRETE/STEEL SYSTEMS AND LIMITATIONS

*Structural diagrams first conceived by Mark Sarkisian, "Designing Tall Buildings: Structure as Architecture," 2012





STRUCTURAL CONSIDERATIONS

TYPICAL FORCES ACTING ON TALL BUILDINGS

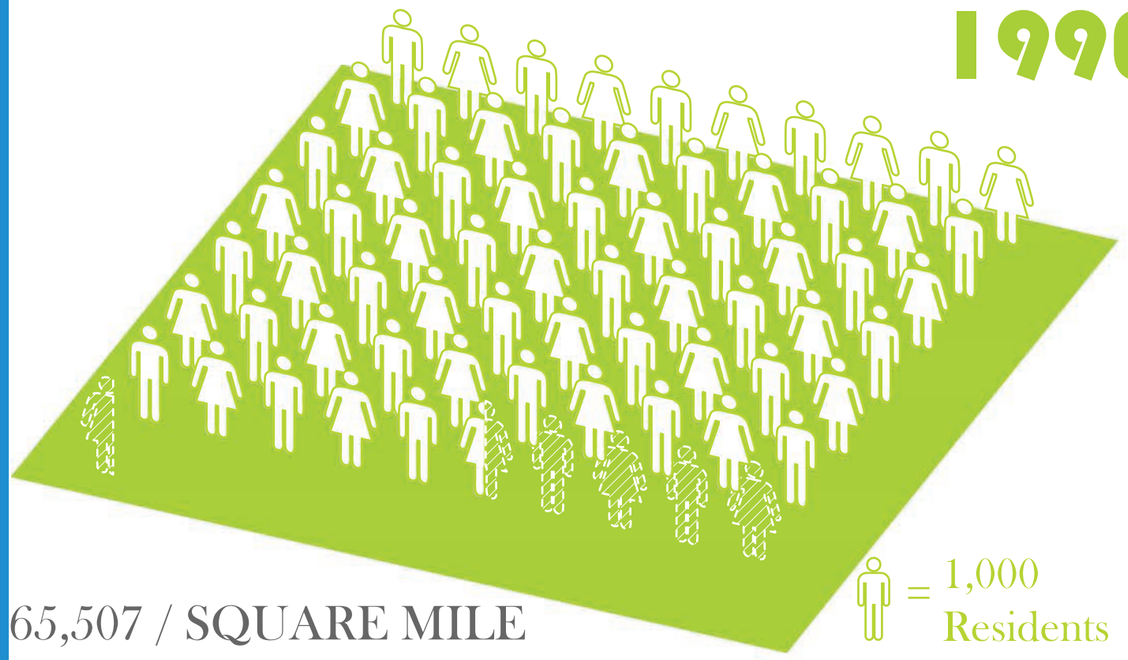
*Structural diagrams first conceived by Mark Sarkisian, “Designing Tall Buildings: Structure as Architecture (2012)

SEISMIC FORCES (30s FRAME COLLAGE)

PHOTO COMPILATIONS OF AN EARTHQUAKE SIMULATION

AVERAGE DENSITY IN MANHATTAN / SQUARE MILE

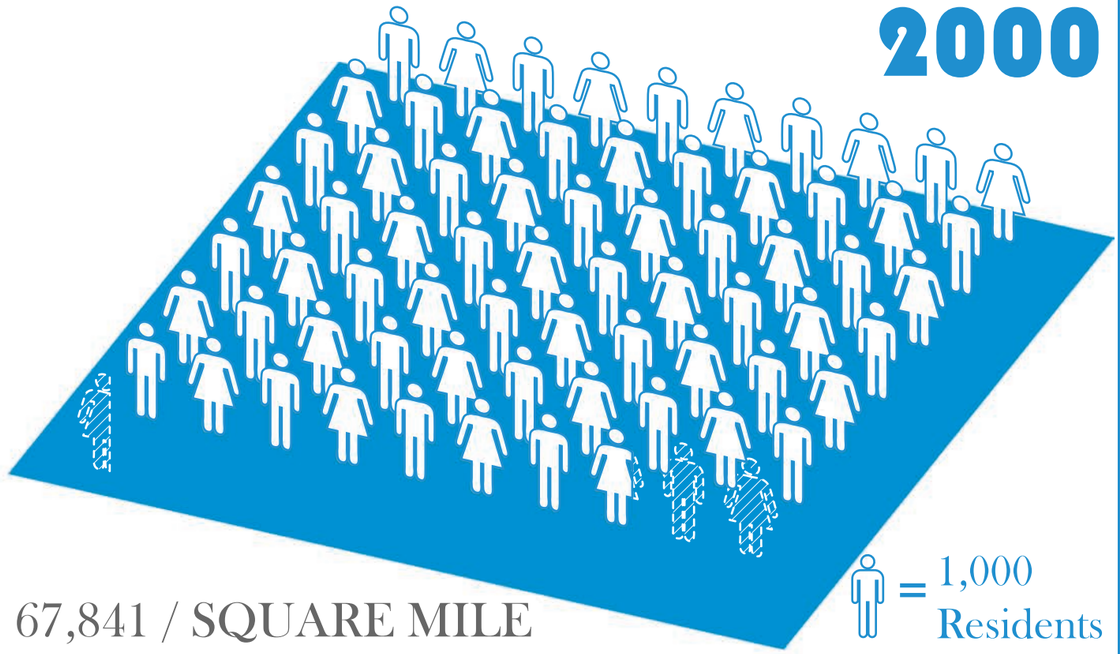
1990



65,507 / SQUARE MILE

= 1,000 Residents

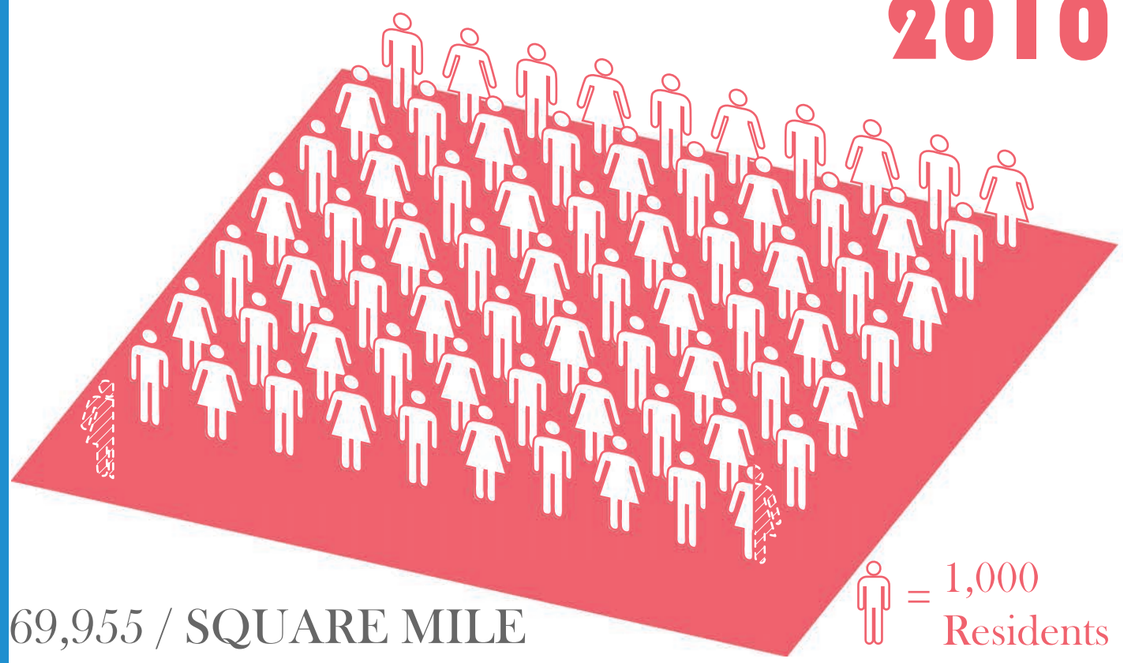
2000



67,841 / SQUARE MILE

= 1,000 Residents

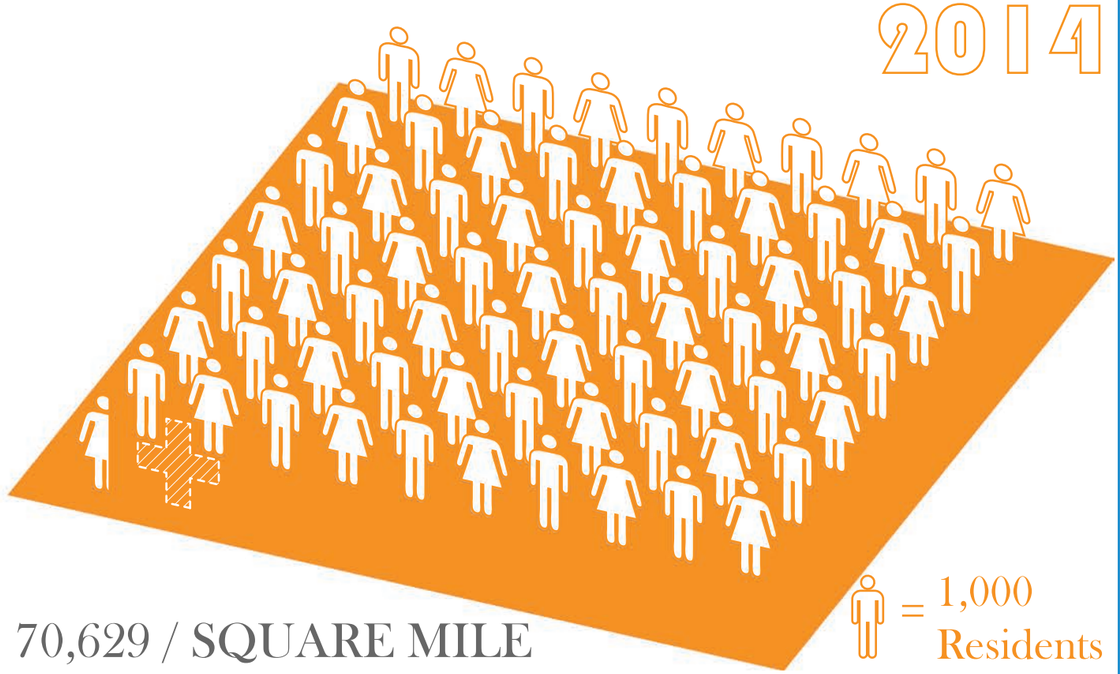
2010



69,955 / SQUARE MILE

= 1,000 Residents

2014



70,629 / SQUARE MILE

= 1,000 Residents

*Manhattan density statistics collected from city-data.com and reinterpreted

ONGEVITY AND EVOLUTION OF NYC SKYSCRAPERS

"And then suddenly we saw during the last decade or so the onset of a new form of skyscraper, the residential skyscraper, which has defined a differend kind of relationship with the sky."

-Vishaan Chakrabarti, AIA, SHoP Architects

1.) THE BUILDING ENVELOPE AS DEFINED BY THE NYC BLOCK

2.) THE ENVELOPE MODIFIED BY BUILDING USE AND ORGANIZATION

3.) THE MODIFIED ENVELOPE FILLED WITH RECTALINEAR FORMS

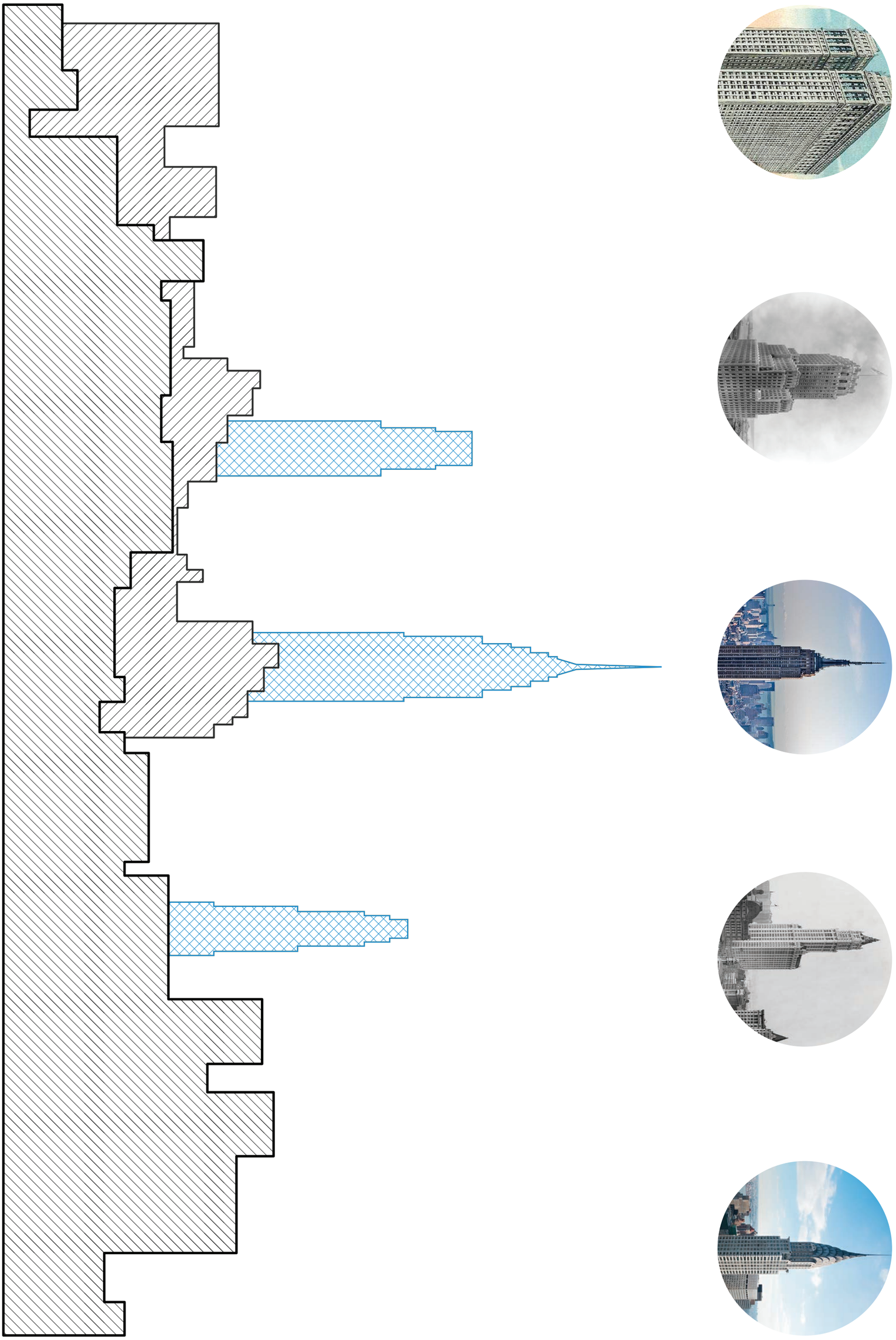
4.) THE OVERALL FORM MODIFIED BY STEEL CONSTRUCTION

MANHATTAN ZONING REGULATIONS

ILLUSTRATIONS OF SETBACK CONSTRAINTS - HUGH FERRISS, 1922

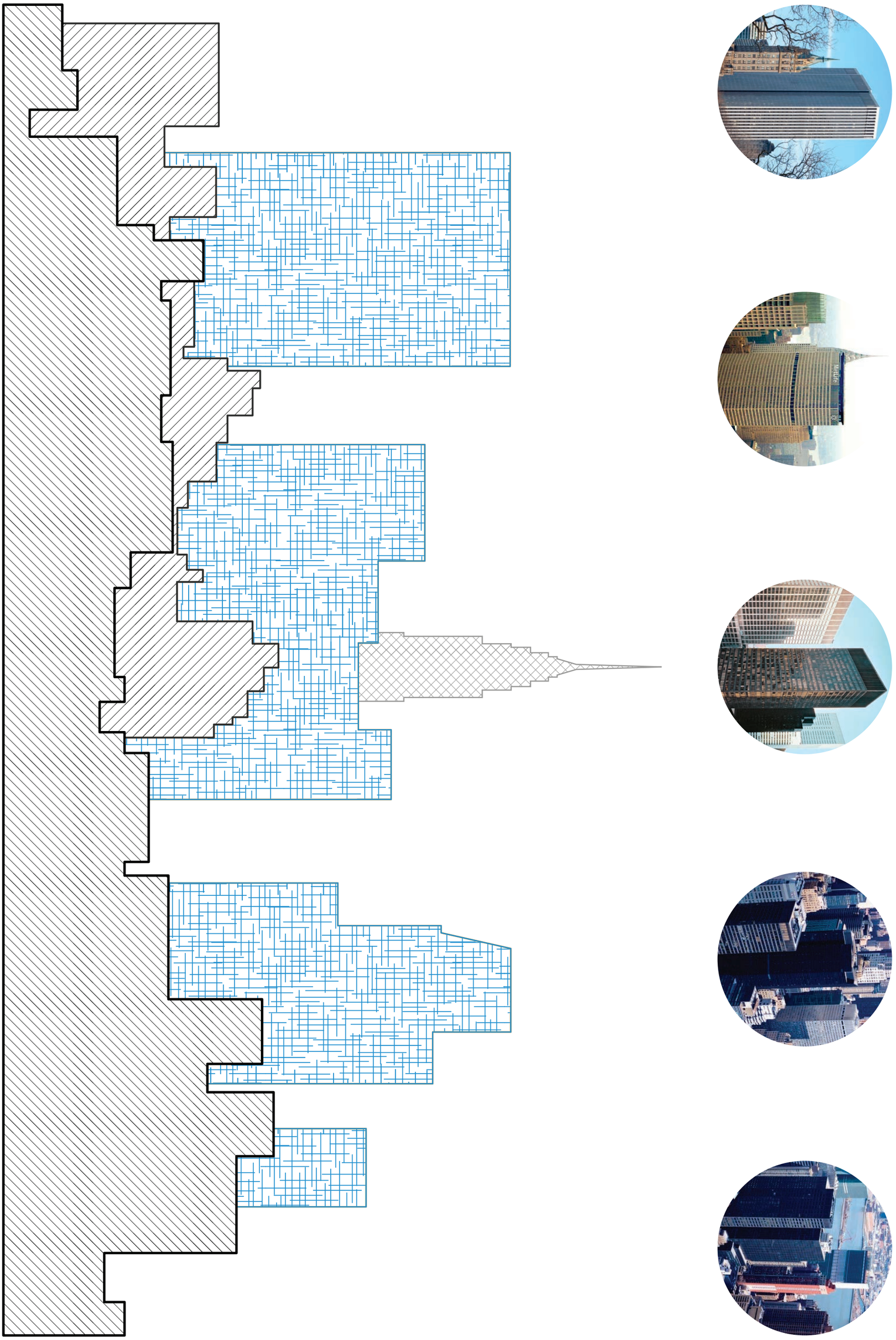
SUDDEN SCALAR SHIFTS

DRAMATIC CONTRASTS IN NYC STREETSCAPES - BERNICE ABBOTT, 1935



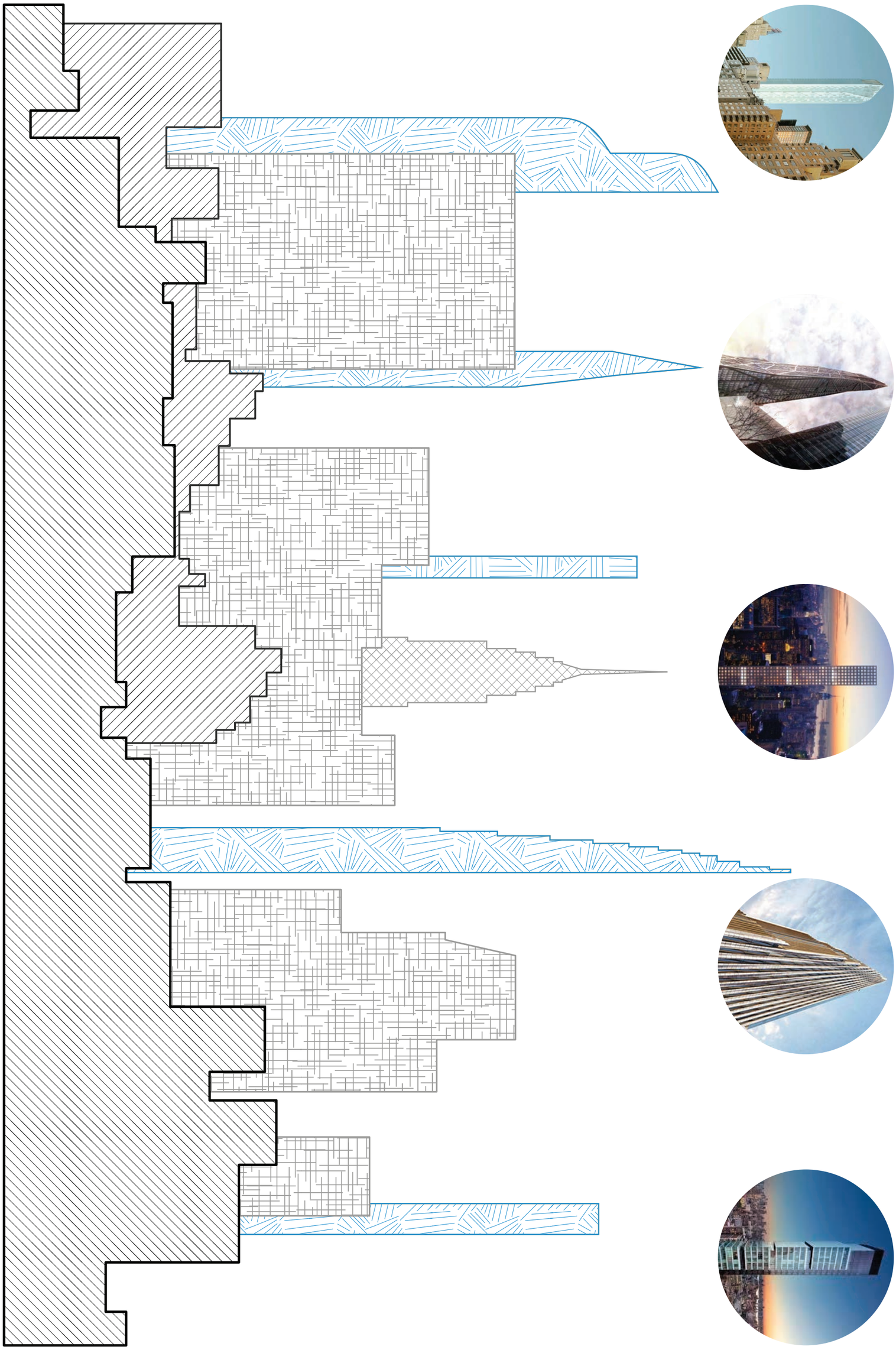
TRADITIONAL NYC SKYSCRAPERS

THE EVOLUTION OF NYC SKYSCRAPERS AS A TYPOLOGY IN MANHATTAN



POST WWII OFFICE TOWERS

THE EVOLUTION OF NYC SKYSCRAPERS AS A TYPOLOGY



THE EMERGENCE OF SLIM TOWERS

THE EVOLUTION OF SKYSCRAPERS AS A TYPOLOGY IN MANHATTAN

500 or more

51-500

6 - 50

1 - 5

WEALTHIEST AREAS IN MANHATTAN

NUMBER OF HOMES IN MANHATTAN VALUED AT $5MILLION OR MORE

*Housing value data originally collected by the Independent Budget Office and is based on recent sales figures

51 or more

26 - 50

6 - 25

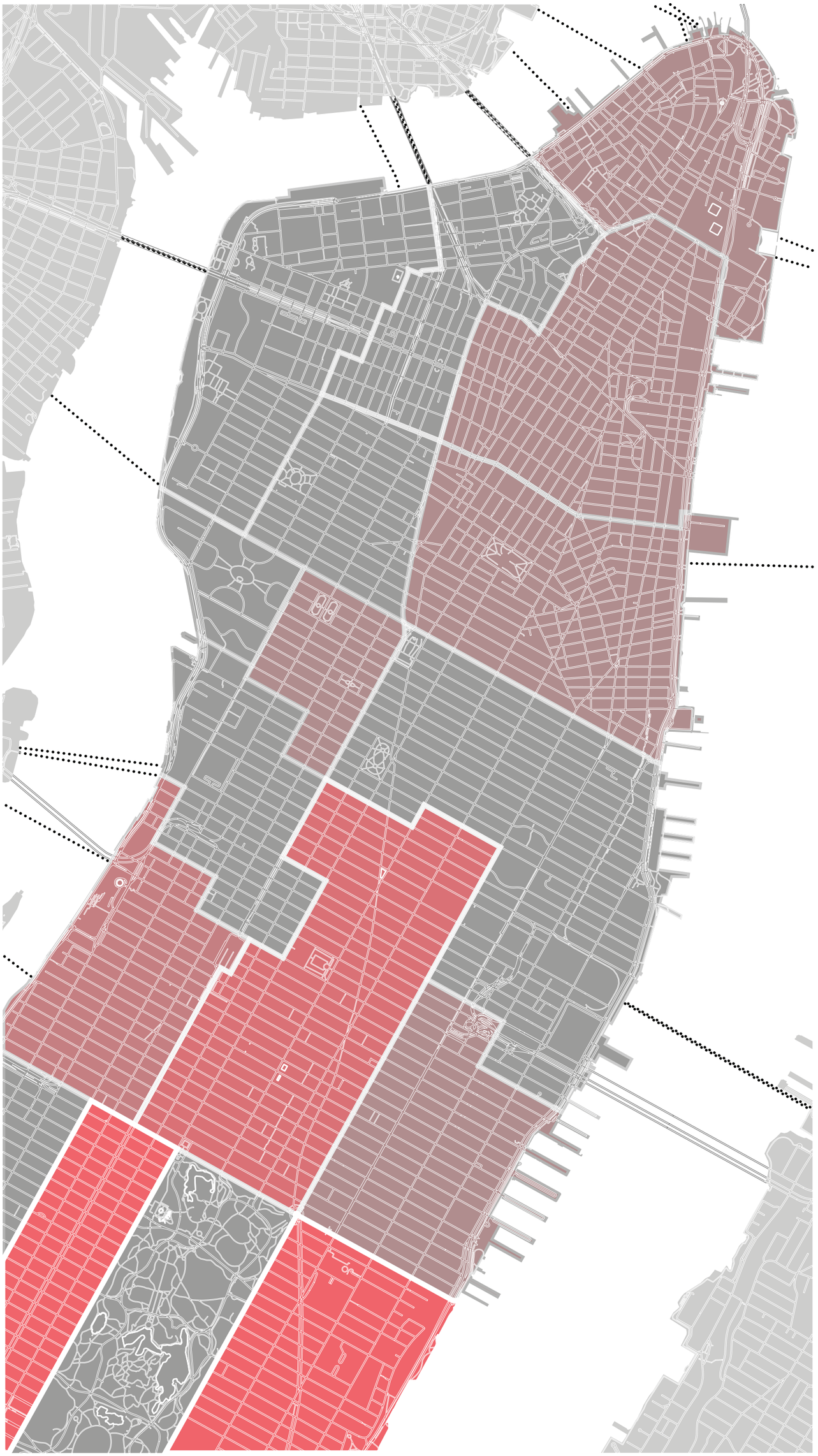
1 - 5

WEALTHIEST AREAS IN MANHATTAN

NUMBER OF HOMES IN MANHATTAN VALUED AT $15MILLION OR MORE

*Housing value data originally collected by the Independent Budget Office and is based on recent sales figures

19



26 or more

11 - 25

6 - 10

1 - 5

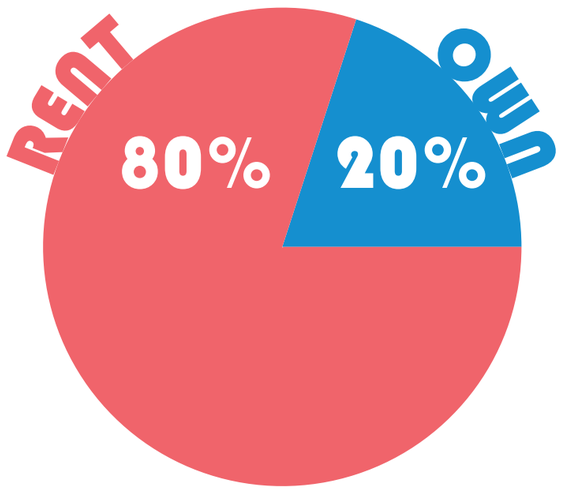
WEALTHIEST AREAS IN MANHATTAN

NUMBER OF HOMES IN MANHATTAN VALUED AT $25MILLION OR MORE

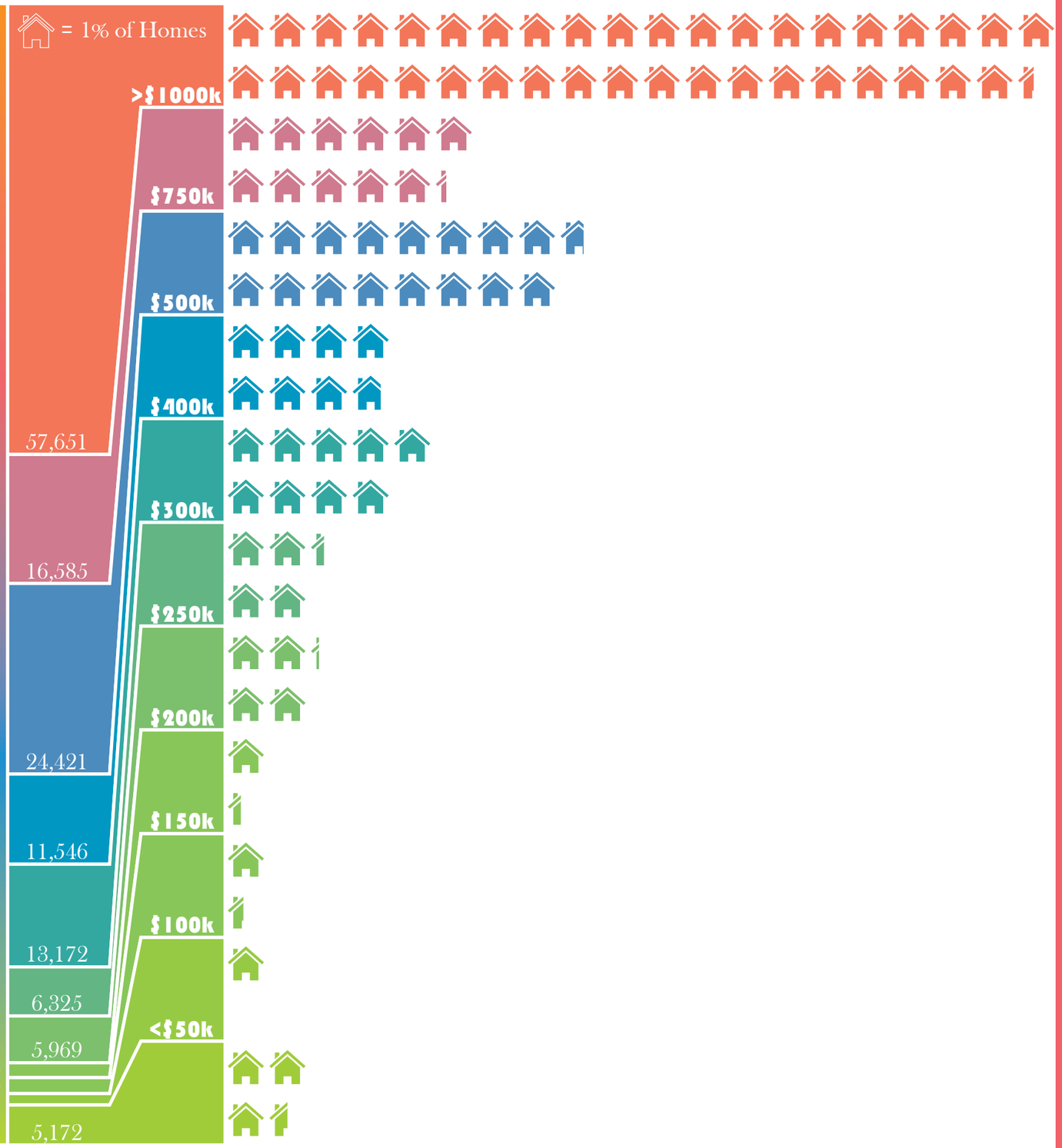
*Housing value data originally collected by the Independent Budget Office and is based on recent sales figures

$2,348,697
(MEDIAN HOUSEHOLD VALUE)

UPPER 25% HOUSEHOLD VALUE



148,695
HOMES OWED IN MANHATTAN



$451,147
(MEDIAN HOUSEHOLD VALUE)

LOWER 25% HOUSEHOLD VALUE

*Manhattan housing value statistics collected from city-data.com and reinterpreted

"While some owners will enjoy their aeries as a primary residence, many apartments are being purchased as investments by wealthy individuals, LLPs, and by international buyers: they are, in effect, strong-boxes in the sky."

-Carol Willis, Founder and Director, Skyscraper Museum

NSTANCES OF SLIMNESS IN THE WORLD TODAY

The Municipal Art Society of New York

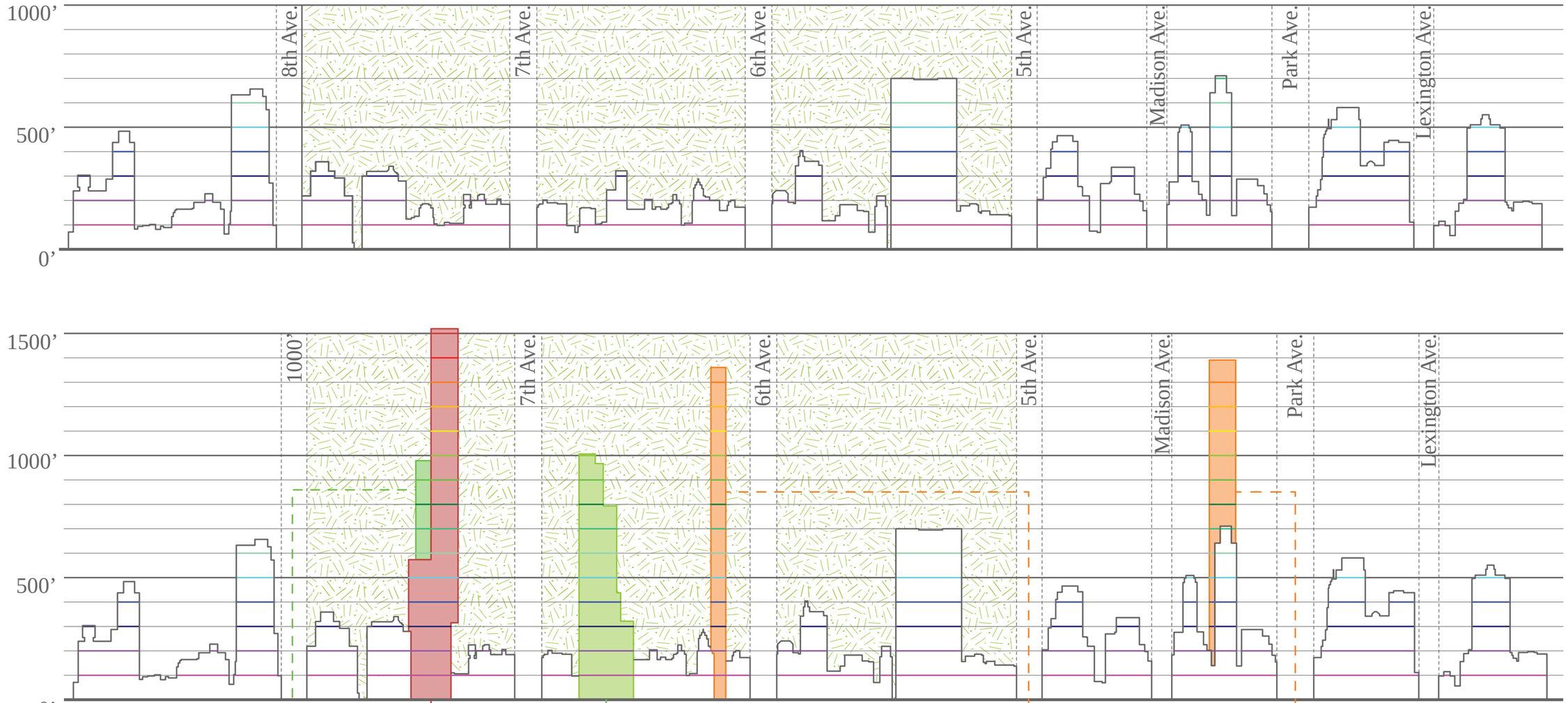
MASNYC

THE ACCIDENTAL SKYLINE

SLIM DEVELOPMENT FOR MIDTOWN

PROPOSED TOWER LOCATIONS AND OVERALL HEIGHT

*Image courtesy of MASNYC's study "The Accidental Skyline," 2013



220 Central Park South
920 ft
2016

217 West 57th St.
1,550 ft
2018

157 West 57th St.
1,004 ft
2014

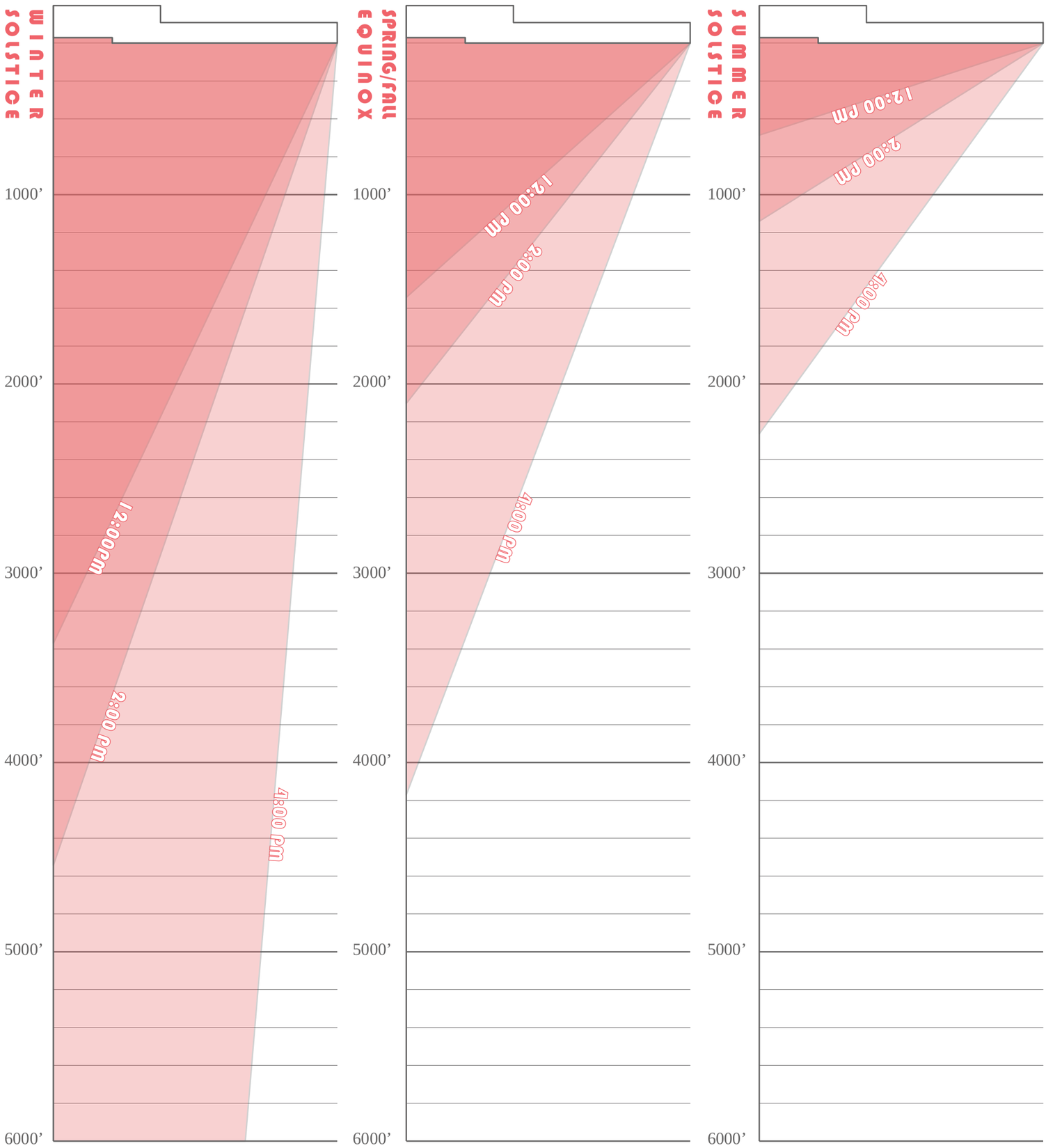
111 West 57th St.
1,350 ft
2016

432 Park Ave
1396 ft
2015

WEST 57TH ST. ELEVATION ANALYSIS

COMPARATIVE ANALYSIS BEFORE AND AFTER DEVELOPMENT

*Data collected and reinterpreted from MASNYC’s study “The Accidental Skyline,” 2013



SHADOW STUDY - 217 W 57TH ST.

DISTANCE OF SHADOWS CASTTHROUGHOUT THE YEAR

*Data collected and reinterpreted from MASNYC’s study “The Accidental Skyline,” 2013

4 CASE STUDIES OF SLIM TOWERS

ONE MADISON PARK, 432 PARK AVE, 111 W 57TH ST, HIGHCLIFF TOWERS

OVERALL HEIGHT.....621'

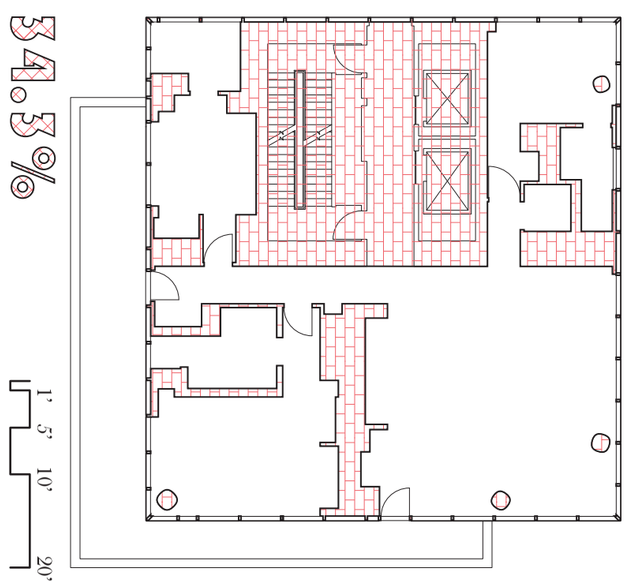
FLOOR COUNT.....50

START CONSTRUCTION.....2006

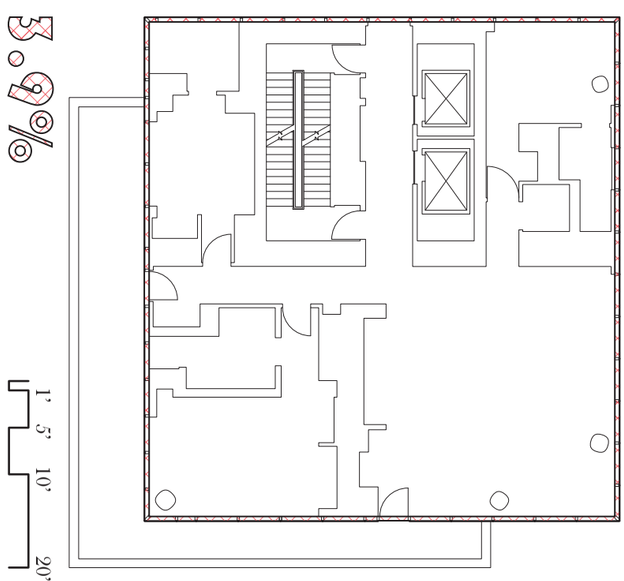
END CONSTRUCTION.....2014

TYPICAL FLOOR GROSS SF....2750 SF

WALLS AND CORE



EXTERIOR ENVELOPE



LIVEABLE AREA

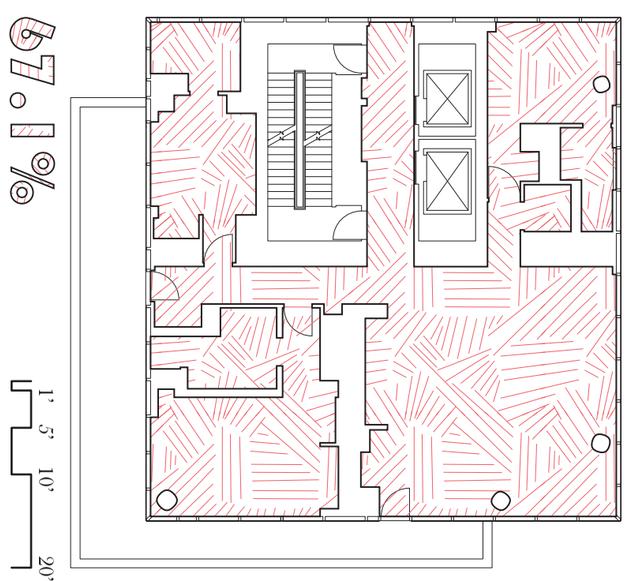
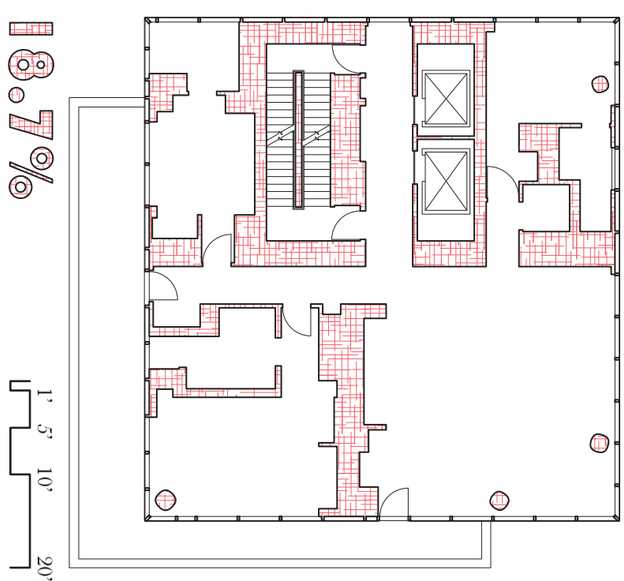


FIGURE / GROUND



02 ONE MADISON PARK

A COMPARATIVE ANALYSIS OF SLIM CASE STUDIES

*Photograph and base building plan courtesy of Centra Ruddy Architects

OVERALL HEIGHT.....1396'

FLOOR COUNT.....89

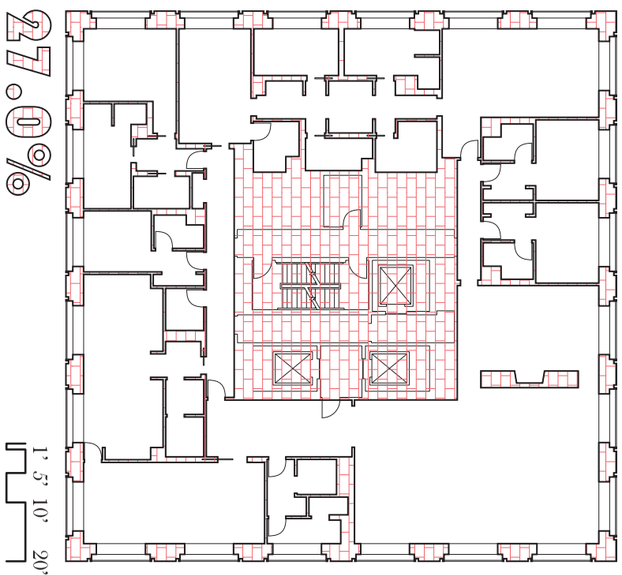
START CONSTRUCTION.....2011

END CONSTRUCTION.....2015

TYPICAL FLOOR GROSS SF....8750 SF

WALLS AND CORE

27.0%



EXTERIOR ENVELOPE

7.4%

LIVEABLE AREA

66.3%

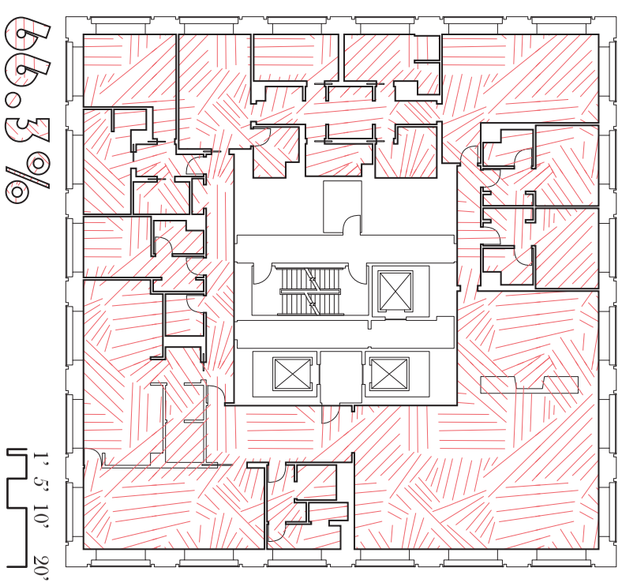
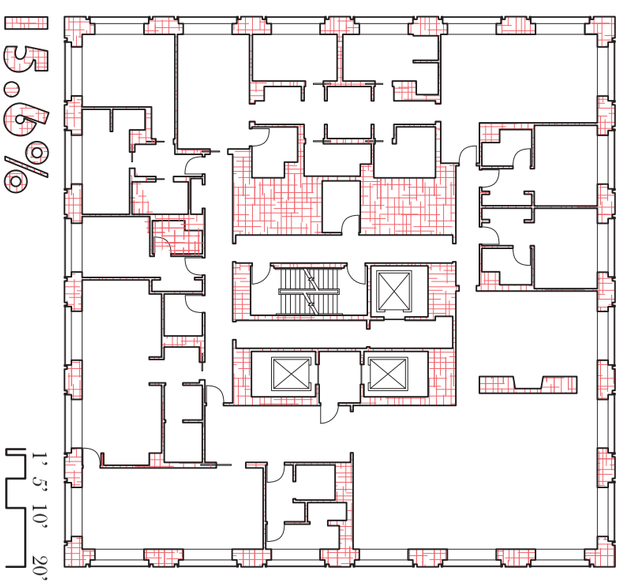


FIGURE / GROUND

5.6%



432 PARK AVENUE

A COMPARATIVE ANALYSIS OF SLIM CASE STUDIES

*Rendering and base building plan courtesy of Rafael Vinoly Architects

OVERALL HEIGHT.....1,421'

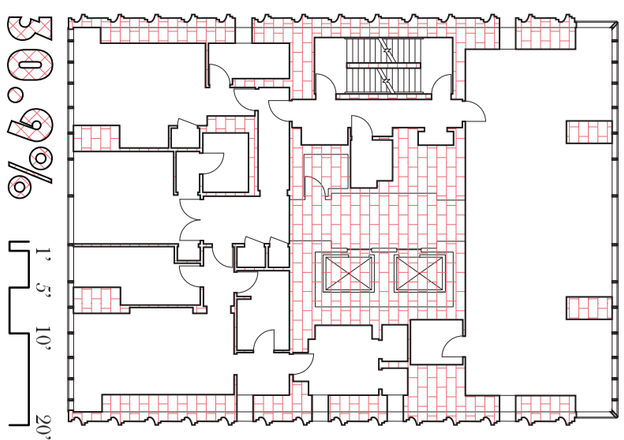
FLOOR COUNT.....74

START CONSTRUCTION.....2014

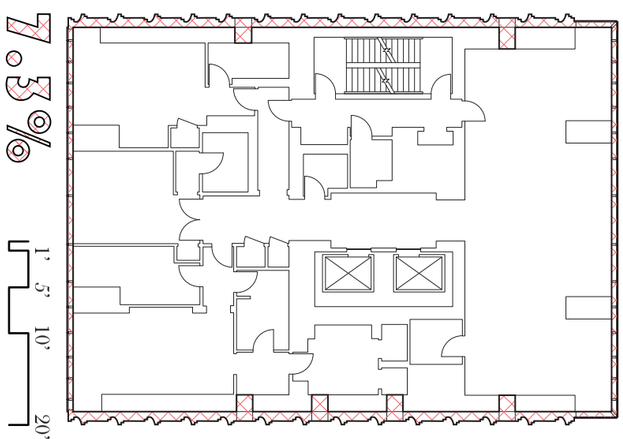
END CONSTRUCTION.....2016

TYPICAL FLOOR GROSS SF....2630 SF

WALLS AND CORE



EXTERIOR ENVELOPE



LIVEABLE AREA

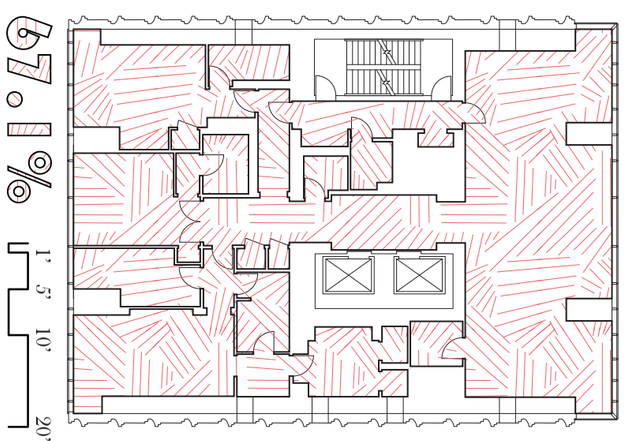
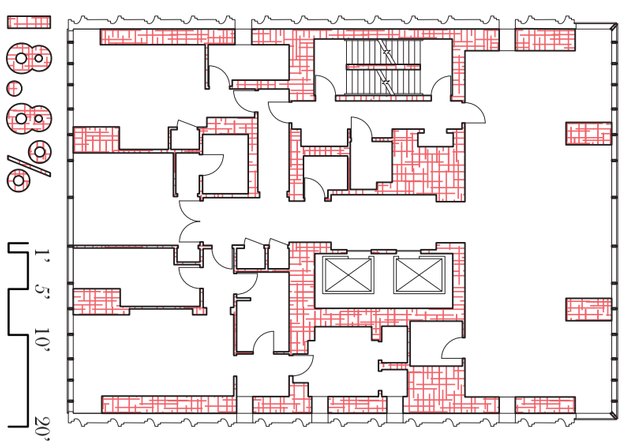


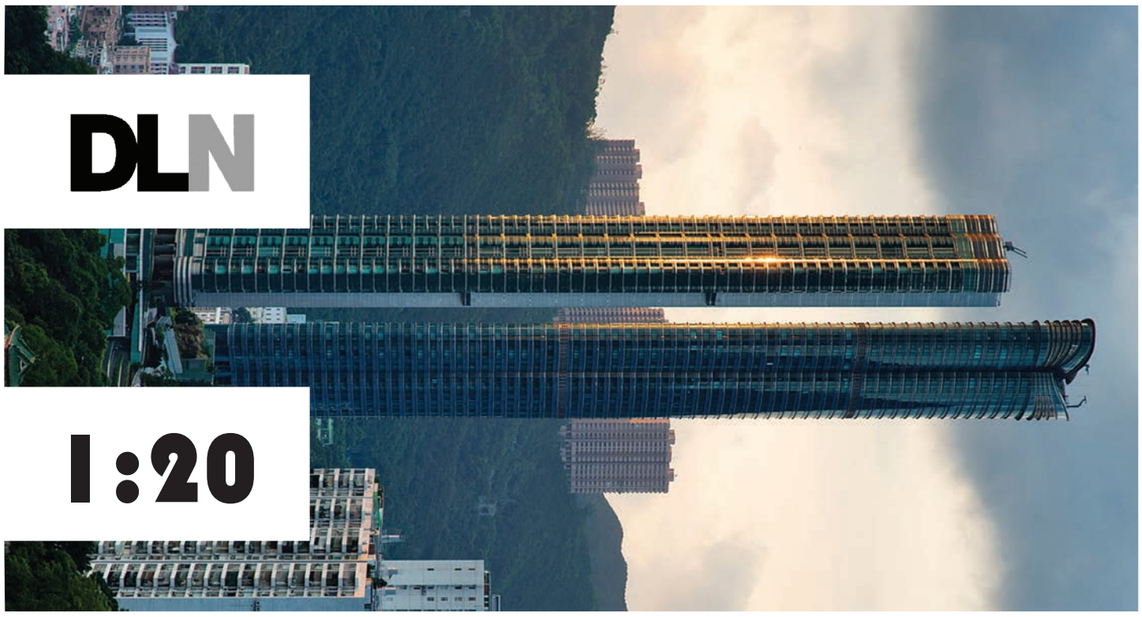
FIGURE / GROUND



111 W 57TH STREET

A COMPARATIVE ANALYSIS OF SLIM CASE STUDIES

*Rendering and base building plan courtesy of SHoP Architects



DLN

1:20

OVERALL HEIGHT.....831'

FLOOR COUNT.....72

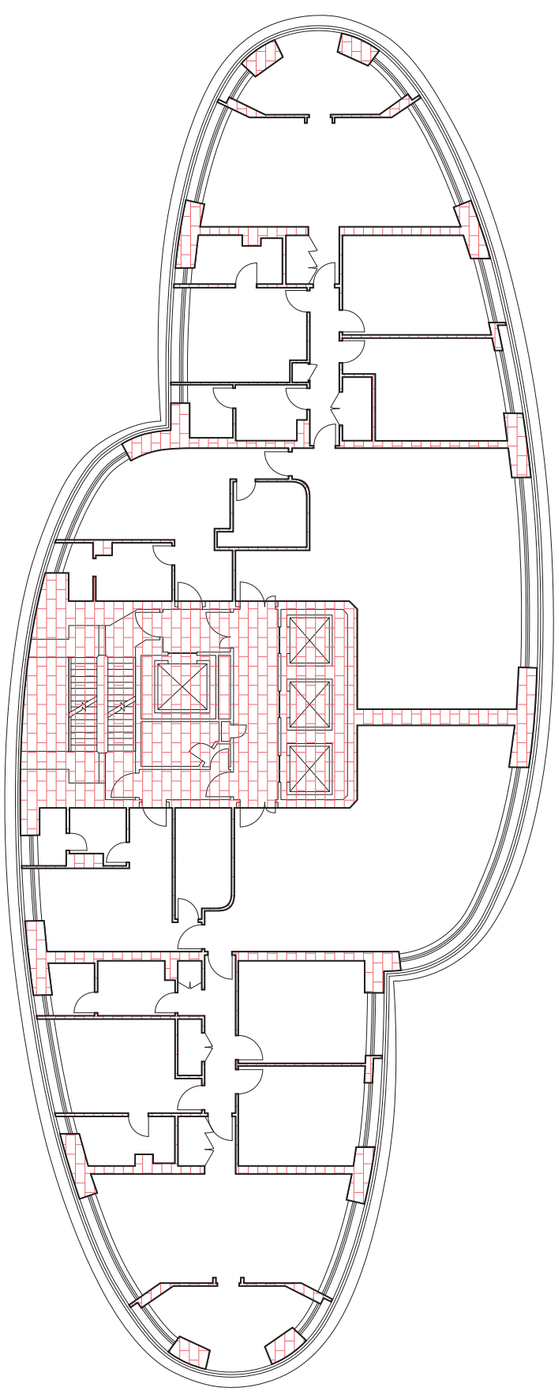
START CONSTRUCTION.....2000

END CONSTRUCTION.....2003

TYPICAL FLOOR GROSS SF....7450 SF

WALLS AND CORE

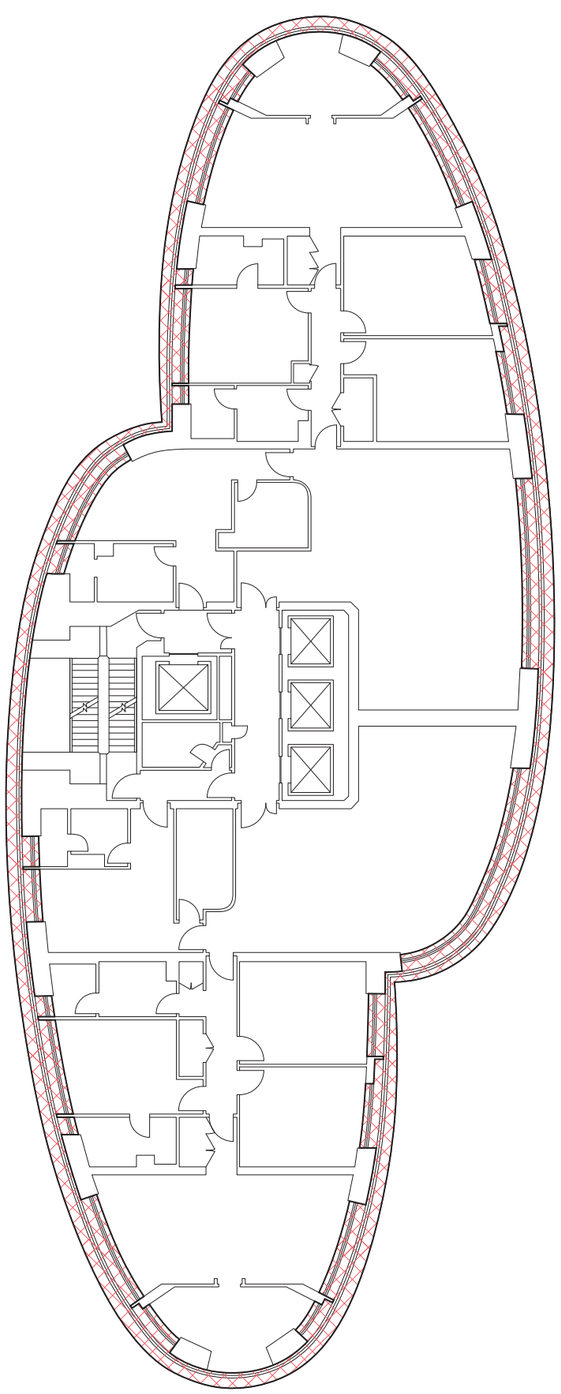
20.5%



1' 5' 10' 20'

EXTERIOR ENVELOPE

9.9%

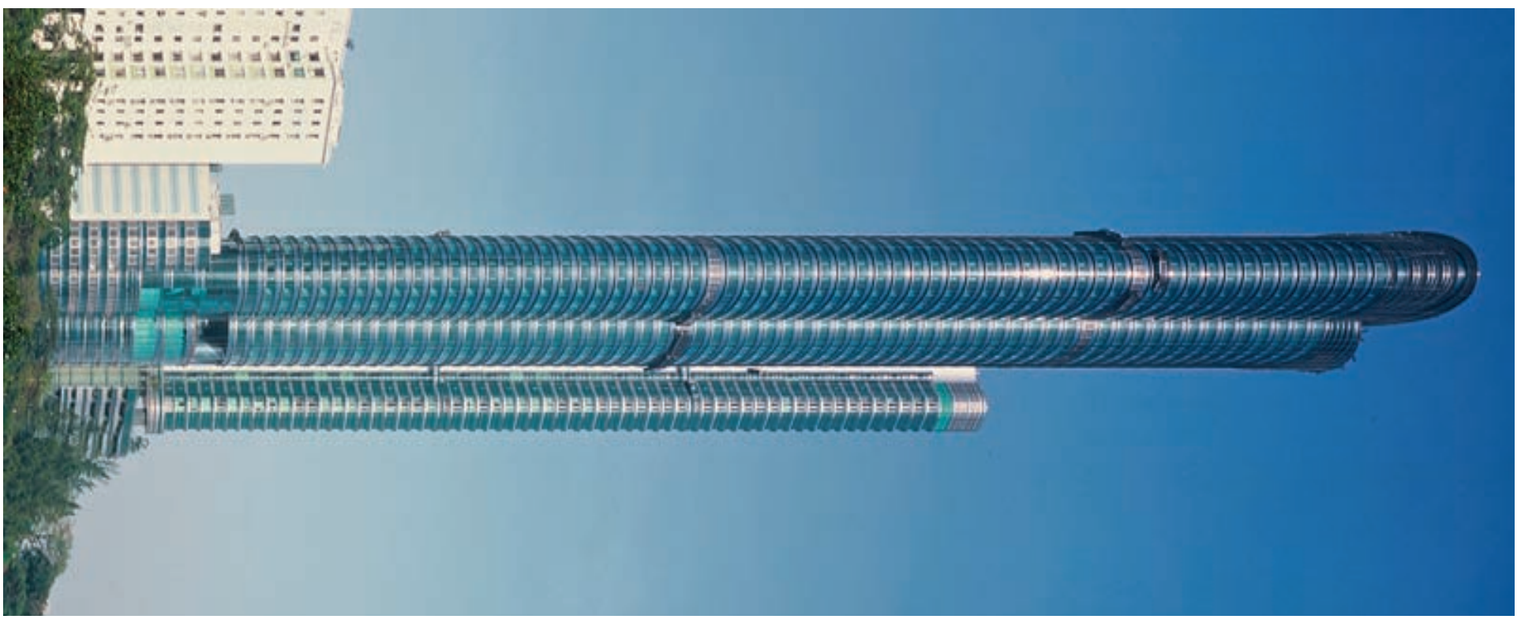


1' 5' 10' 20'

HIGHCLIFF TOWERS

A COMPARATIVE ANALYSIS OF SLIM CASE STUDIES

*Photograph and base building plan courtesy of DLN Architects



LIVEABLE AREA

65.1%

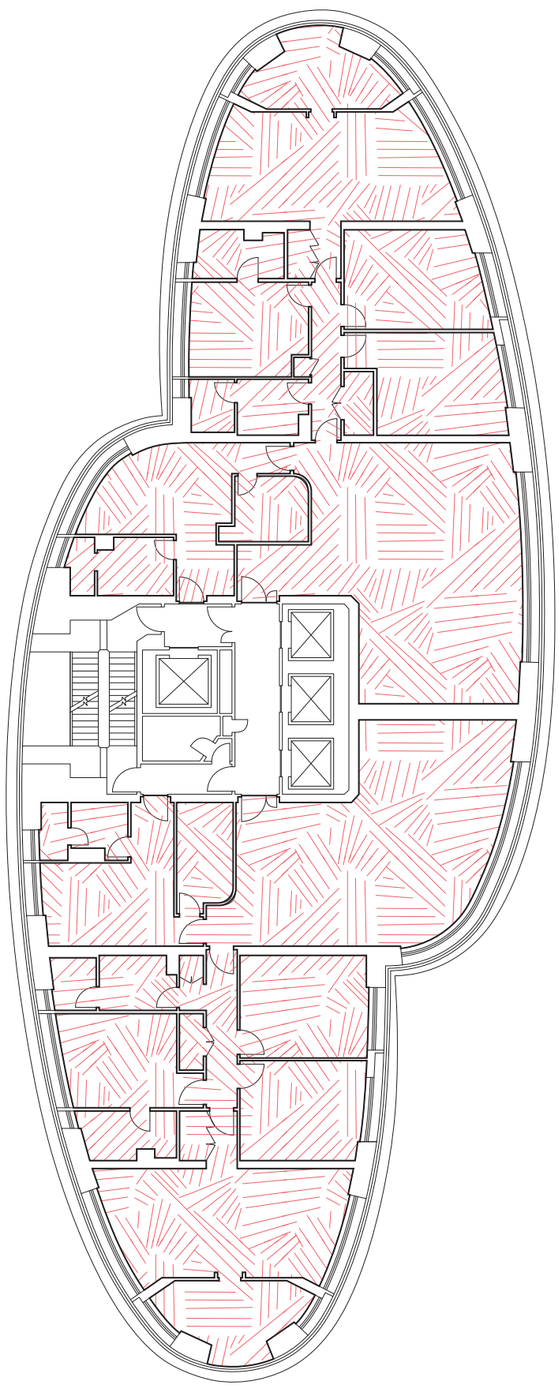
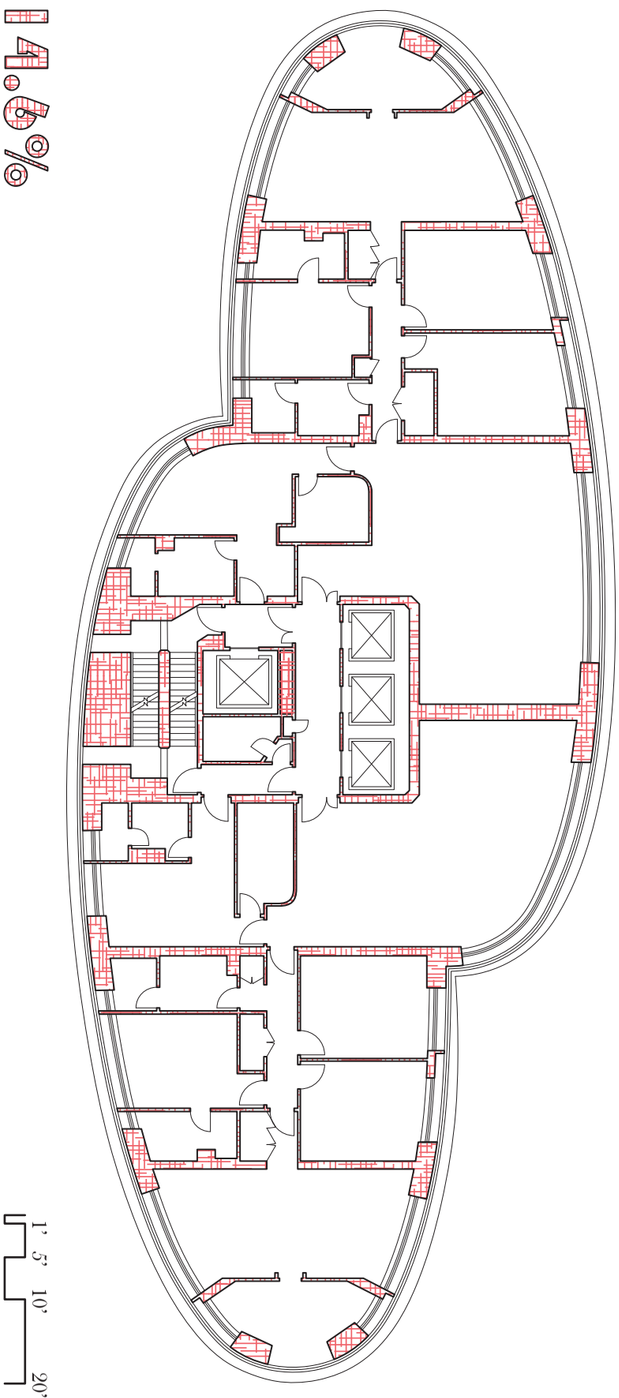


FIGURE / GROUND

14.6%



03

HIGHCLIFF TOWERS

A COMPARATIVE ANALYSIS OF SLIM CASE STUDIES

*Photograph and base building plan courtesy of DLN Architects

$864,394
(MEDIAN HOUSEHOLD INCOME)

wealthiest 5%

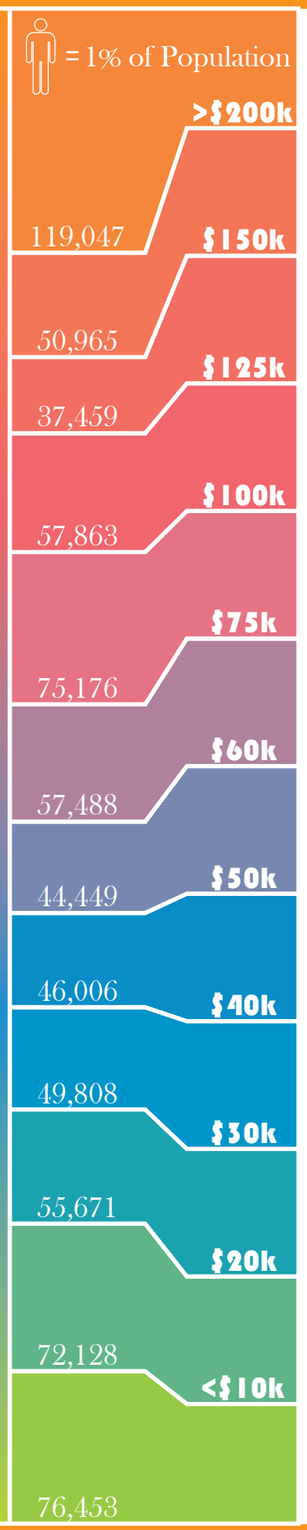
LARGEST INCOME GAP OF ANY COUNTY IN THE UNITED STATES

88x

$92,758,600
MANHATTAN'S AGGREGATE HOUSEHOLD INCOME

poorest 20%

$9,822
(MEDIAN HOUSEHOLD INCOME)

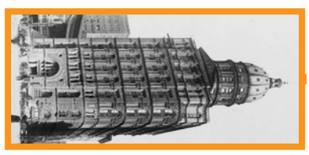


*Manhattan average income statistics collected from city-data.com and reinterpreted

"Yet often the world's tallest buildings are simply the edifice of a broader skyscraper building boom, reflecting a widespread misallocation of capital and impending economic correction."

-Andrew Lawrence, Economist, Barclay's Capital

AGROECONOMICS AND SKYSCRAPER DEVELOPMENT



world building
1890

manhattan life building
1893

singer building
1908

metropolitan life tower
1909

bank of manhattan building
1930

chrysler building
1930

empire state building
1931

world trade center towers
1972

one world trade center
2014

432 park avenue
2015

111 west 57th street
2016

225 west 57th street
2018

250' 500' 750' 1000' 1250' 1500' 1750'

1890 - 1894

BRITISH BANKING CRISIS + RAILROAD COLLAPSE

1907 - 1910

BANKER'S PANIC + US ECONOMIC CRISIS

1929 - 1933

THE GREAT DEPRESSION

1973 - 1975

US AND WORLDWIDE ECONOMIC CRISIS

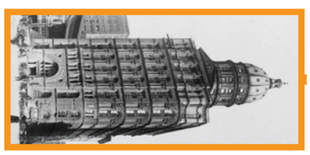
2014 - 2018

????????????????????????????

SKYSCRAPER INDEX IN NYC

NYC TOWER CONSTRUCTION AND SUBSEQUENT ECONOMIC CRISES

*Based on Andrew Lawrence's Skyscraper Index Study and reinterpreted



world building
1890

manhattan life building
1893

singer building
1908

metropolitan life tower
1909

bank of manhattan
1930

chrysler building
1930

empire state building
1931

world trade center
1972

one world trade center
2014

432 park avenue
2015

111 west 57th street
2016

225 west 57th street
2018

10% 20% 30% 40% 50% 60% 70% 80% 90% 100% 110%

BRITISH BANKING CRISIS + RAILROAD COLLAPSE

BANKER'S PANIC + US ECONOMIC CRISIS

THE GREAT DEPRESSION

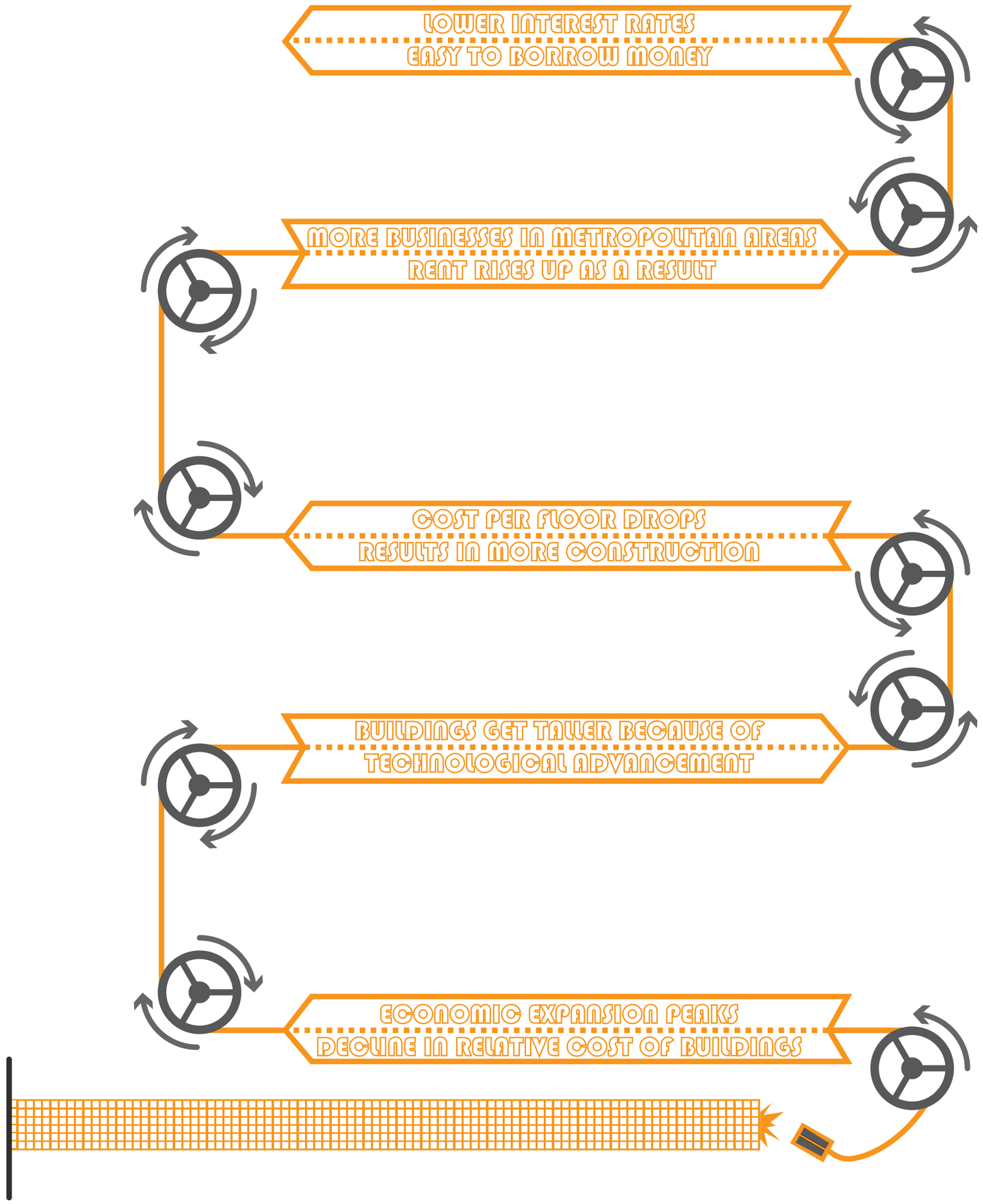
US AND WORLDWIDE ECONOMIC CRISIS

????????????????????????????

SKYSCRAPERS AND NATIONAL DEBT

US NATIONAL DEBT AS A PERCENTAGE OF GROSS DOMESTIC PRODUCT

*GDP and National Debt statistics collected by the Congressional Budget Office and reinterpreted

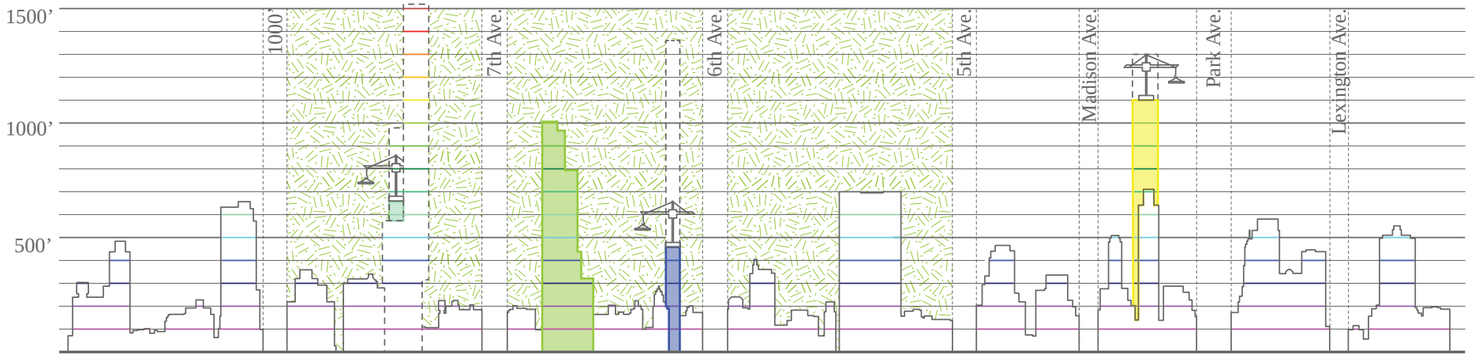


CONSTRUCTION AND RECESSION

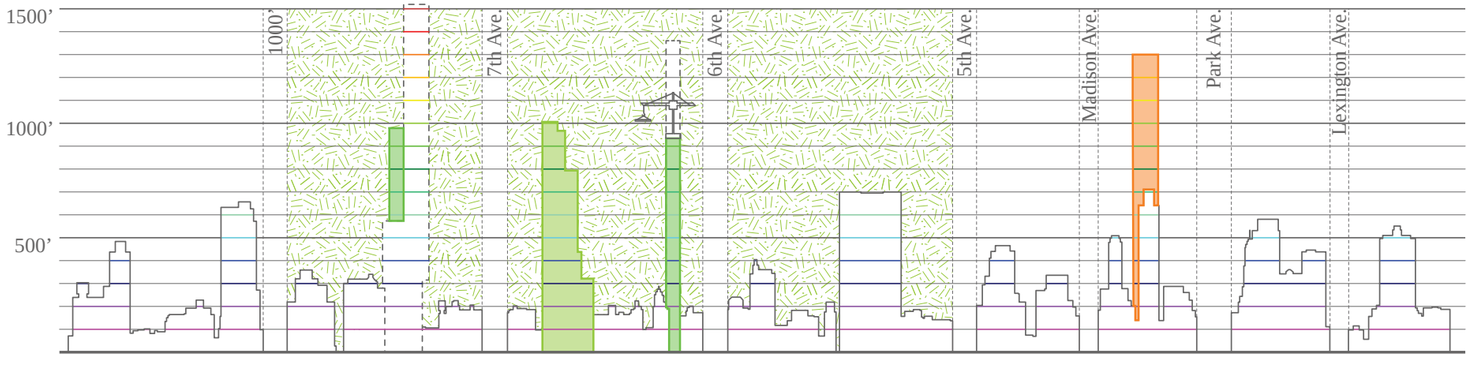
HOW SKYSCRAPER DEVELOPMENT CAN PREDICT FINANCIAL CRISIS

W 57TH ST CONSTRUCTION TIMELINE

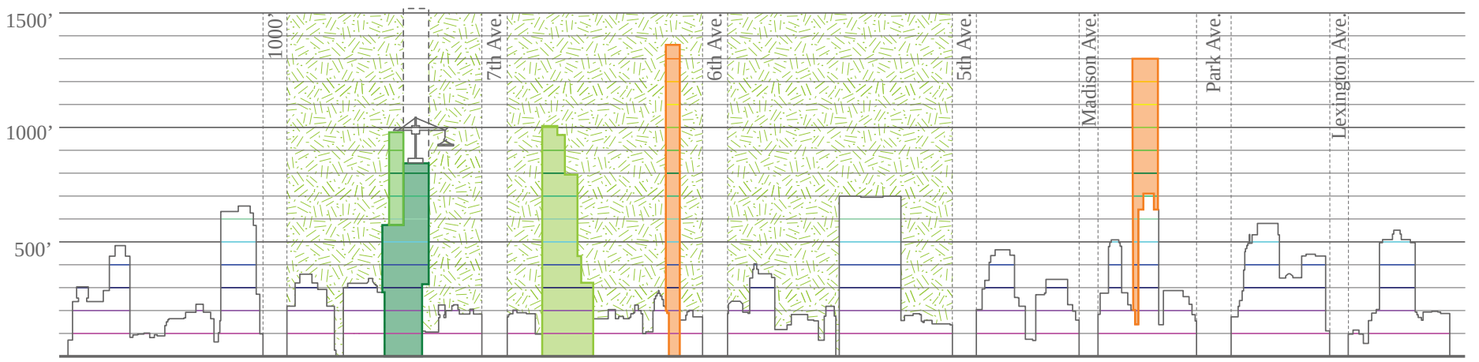
NYC TOWER CONSTRUCTION AND SUBSEQUENT ECONOMIC CRISES



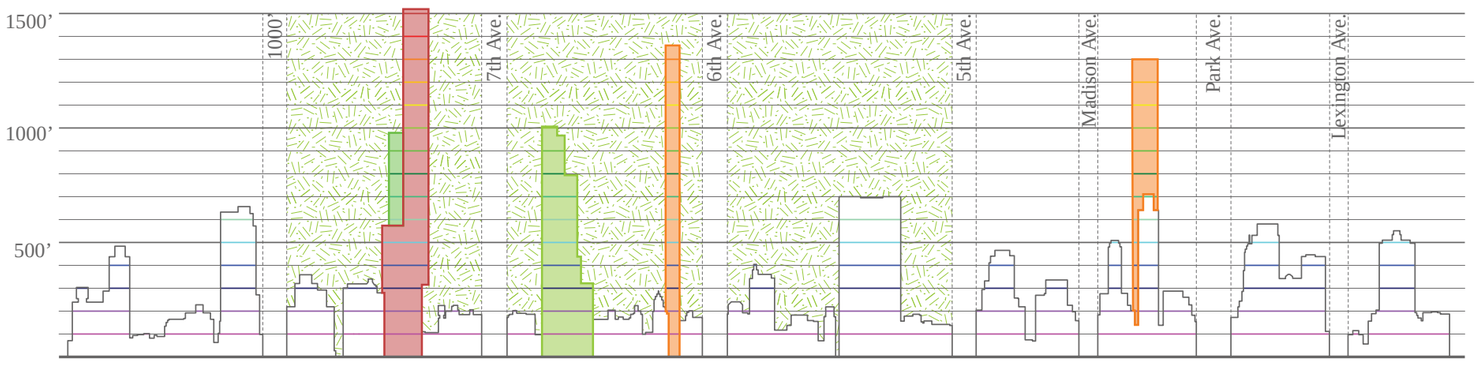
2015



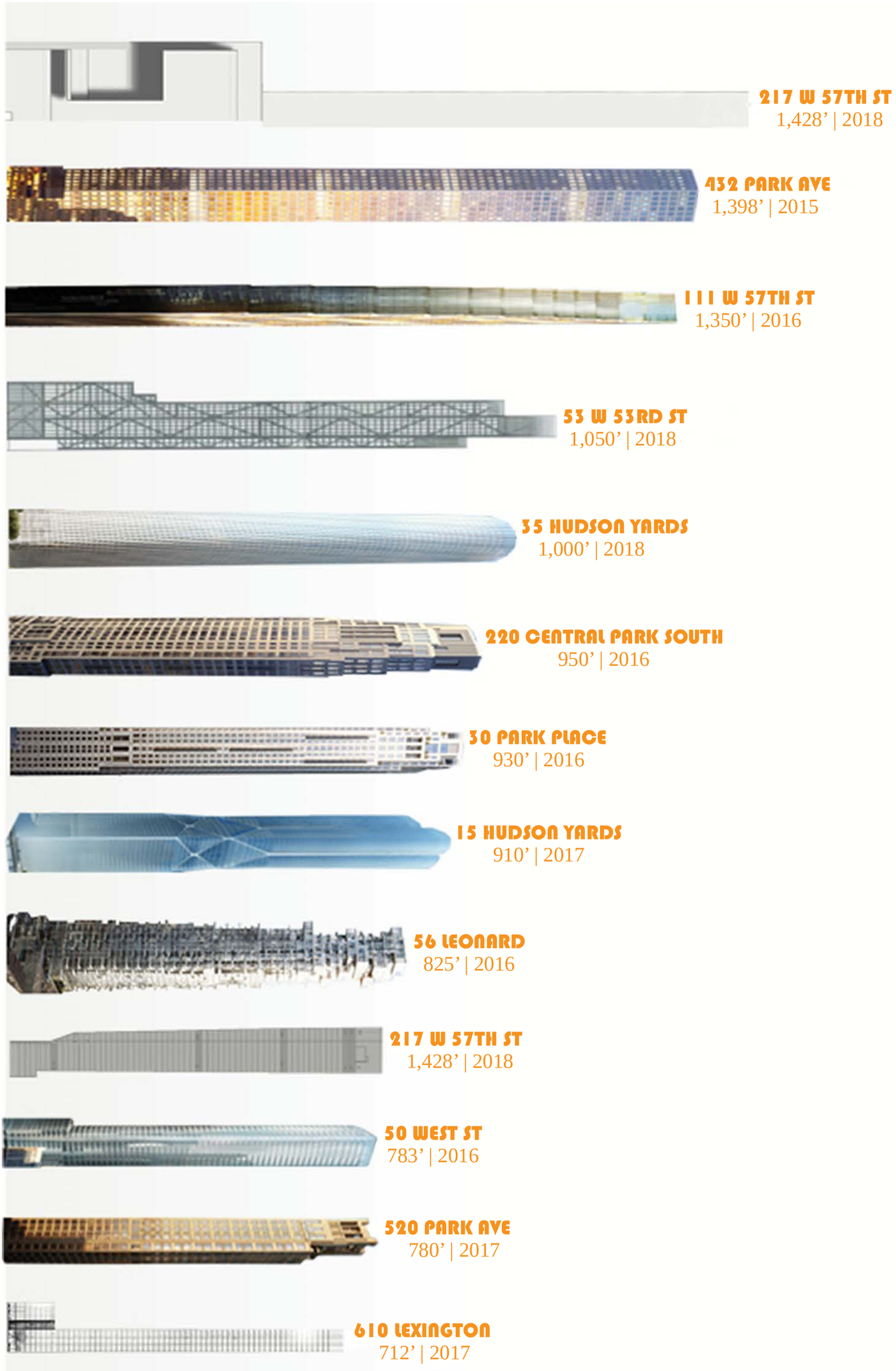
2016



2017



2018



THE CURRENT SKYSCRAPER BOOM

ANTICIPATED DEVELOPMENT OF RESIDENTIAL SKYSCRAPERS

THE PERFECT STORM

HURRICANE SANDY AND THE CONSTRUCTION OF ONE 57

CIRCUMSTANTIAL OPPORTUNITY

WHAT WILL HAPPEN WHEN THE MONEY STOPS FLOWING?

THE NEW GILDED AGE

THE WHITNEY AND CORNING MUSEUMS

GOOD DESIGN IS GOOD BUSINESS

ARCHITECTURAL RECORD

A CLOSE LOOK AT HIGH END REAL ESTATE IN MANHATTAN

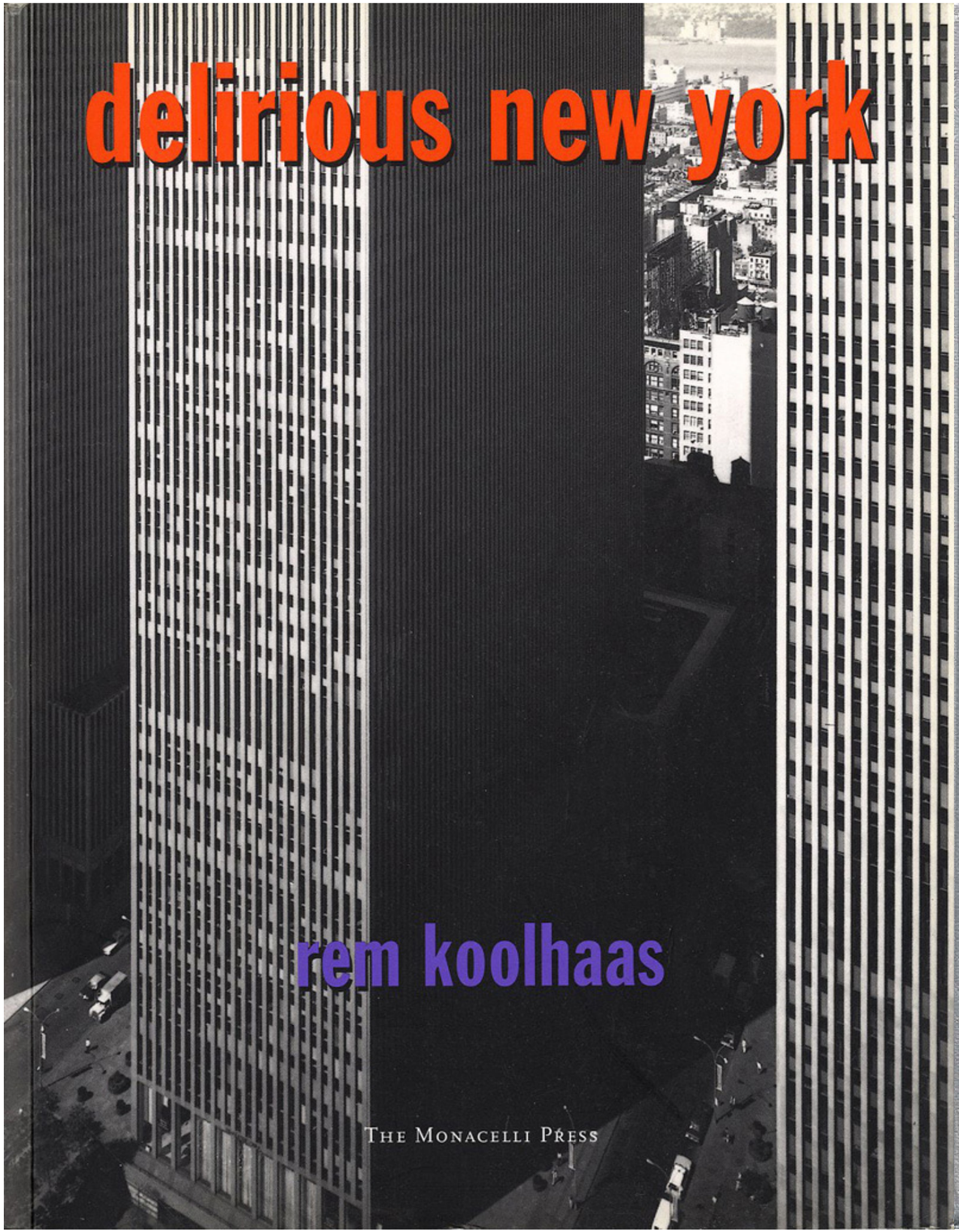
PERSPECTA 47: MONEY

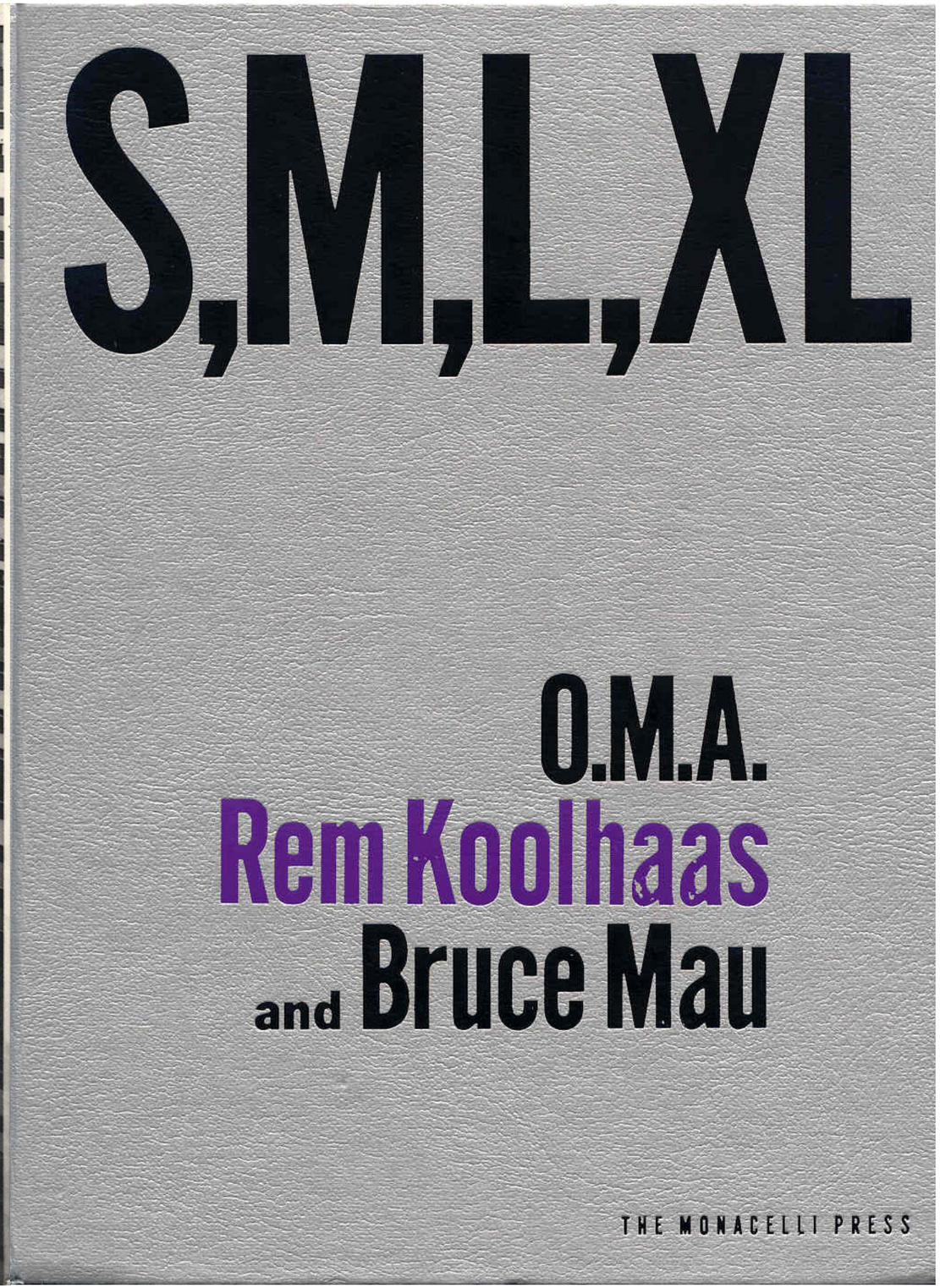
THE RELATIONSHIP BETWEEN ARCHITECTURE AND MONEY

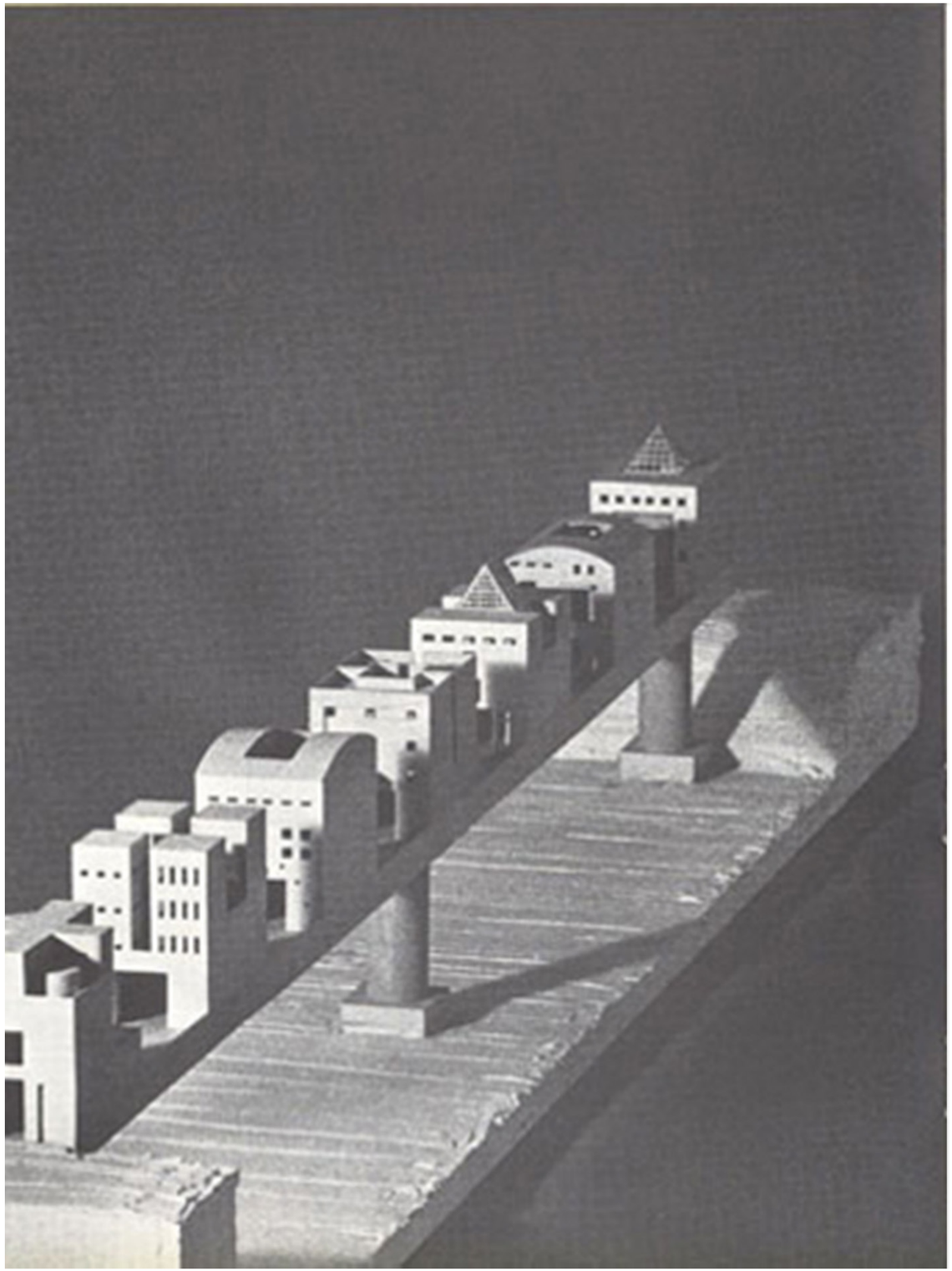
TOWERS OF SECRECY

Stream of Foreign Wealth Flows to Elite New York Real Estate

By LOUISE STORY and STEPHANIE SAUL FEB. 7, 2015

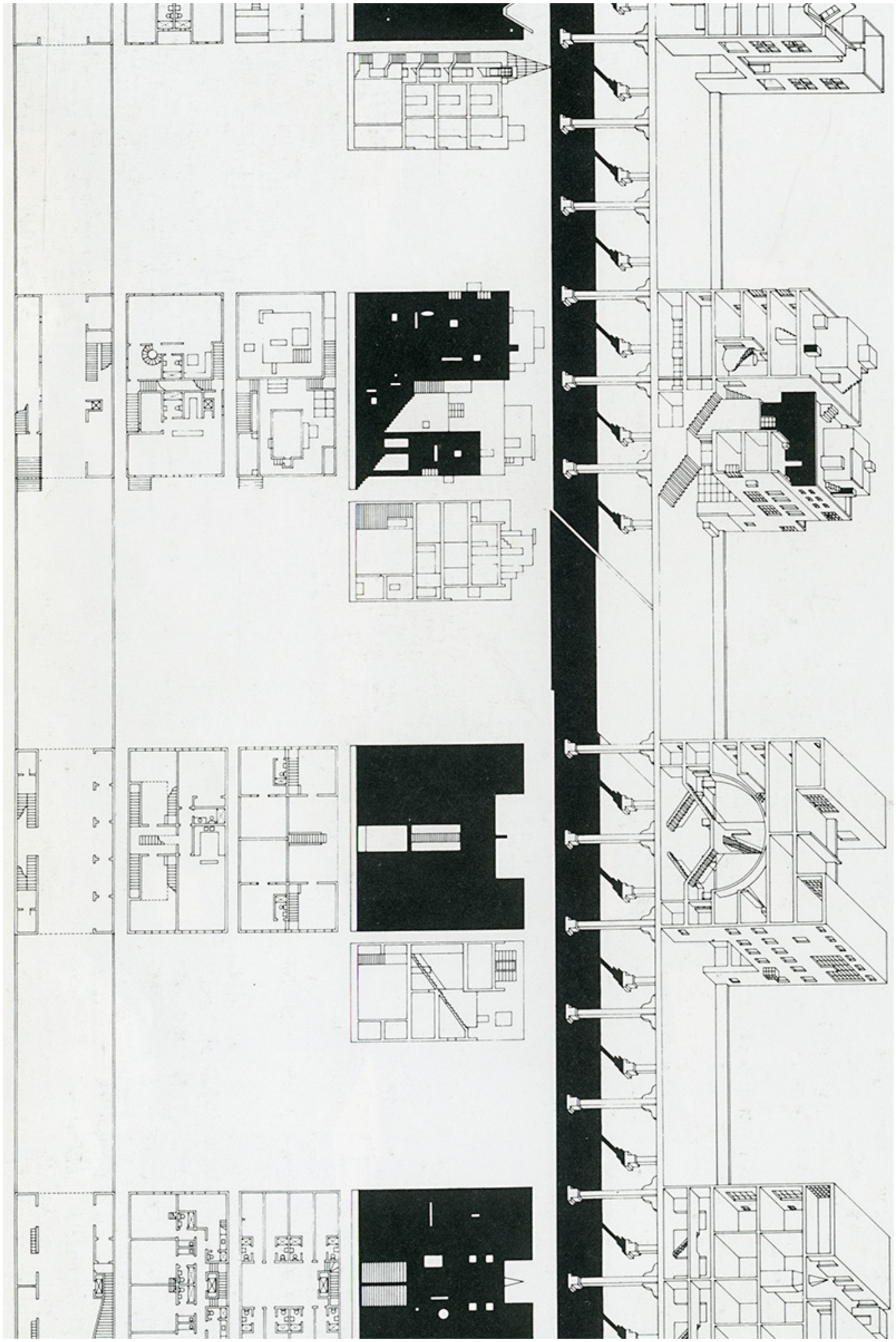

delirious new york
rem koolhaas
The Monacelli Press


S,M,L,XL
O.M.A.
Rem Koolhaas
and Bruce Mau
THE MONACELLI PRESS



BRIDGE of HOUSES

PAMPHLET ARCHITECTURE Nº7 NEW YORK JULY 1981



VICTOR ENRICH

SURREALIST MANIPULATIONS OF PHOTOGRAPHS AND FORM

VICTOR ENRICH

SURREALIST MANIPULATIONS OF PHOTOGRAPHS AND FORM

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THE ORIGINS OF SLIMNESS

Manhattan's real estate market since the turn of the 20th century to present day can be characterized as an extreme optimization of the economical elements of architecture. Most of the buildings in Manhattan's diverse and complex skyline share a tenacious desire to maximize the profitability and feasibility of a site while minimizing overall building expenditure. Due to this shared of this principle, it was inevitable that skyscrapers as a typology would prosper throughout the island of Manhattan, even at the expense of the health and well-being of its inhabitants. The Amendments of 1916 and 1961 to New York City's building codes are evidence of this inherent contradiction. Buildings became so tall and so tightly spaced that they all but desolated the ground below, while fire, disease and

death spread quickly throughout the city. Today Manhattan faces a new and ongoing crisis as another consequence of its ruthless real estate market. This impending catastrophe is not one that affects the health and safety of this city's citizens, but rather one that threatens the future economic stability of the city at large. Historically, the construction of some of Manhattan's most famous skyscrapers has coincided with economic collapse and despair. As world renowned buildings such as the Empire State Building and the Chrysler Building rose into the sky, the rest of Manhattan suffered through the economic hardships of the Great Depression. The original World Trade Center Towers are now viewed only as martyrs of American freedom, even though their construction coincided with the Global Financial Crisis of the early to mid-seventies.[1] Nevertheless, over time these buildings were forgiven for the crises they may have contributed to because of the power and prestige they attained.

The architecture of Manhattan may be forever enslaved by the very economic system that it has always been known to perpetuate. Seemingly immeasurable wealth and investment have given rise to a new sub-typology of strikingly skinny residential skyscrapers that may very well result in the demise of Manhattan's real estate market. Conceptually, the idea of ultra-slender skyscrapers has enormous potential for the typological evolution of architecture in Manhattan; however, these skinny towers currently exist only for purposes of exploitation, extravagance and splendor. From the outside, Slim towers seem curiously tall and impossibly skinny, but the way these towers are constructed produces a fundamentally ironic contradiction. To produce such slender silhouettes, a tremendous amount of area is devoted to obese structural systems that yield incredibly wasteful living spaces. In the case of Slimness, function does not follow form, and form does not follow function - form has become driven solely by finance, while functionality has been largely sacrificed. How can the architecture of Manhattan allow for such paradox? The answer lies purely in economics.

As stated in *Perspecta* 47, money has always and will always play a pivotal role in the conception and materialization of architecture; the two share an inexplicable bond. Regarding the inherent relationship between architecture and money, this publication expresses that although money is "formless itself, money is a fundamental form giver."[2] All architects are in one way or another impacted by financial concerns throughout the creation of architecture, and the architects who are currently designing Slim towers in Manhattan are no exception. Throughout history architecture has been a direct product or byproduct of the respective financial and economic climate in which it was conceived. This issue of Perspecta goes so far as to argue that despite the universal impact money has on architecture, architects often dismiss this relationship within the discourses of both practice and academia. Carol Willis makes a similar argument in her book *Form Follows Finance*, in which she argues that all buildings are explicitly "a product of time and place."[3]

SLIMNESS AND ECONOMICS

Slim buildings are exemplary examples of how architecture can be conceived based on primarily financial and economic concerns. They follow the traditional model of high-end real estate where architecture is created based on the assumption that the future revenue generated from condominium sales will offset the immense initial cost of the building. 432 Park Avenue, which is a Slim building that will be completed and occupied this year, is 1,396 feet tall and is only 93 feet wide on other side, giving it a slenderness ratio of 1:15. This project has a total construction cost of approximately $1.25 billion and has 104 condominium units over 88 floors. The building yields approximately 400,000 square feet of usable living space, which is distributed among only 104 units.[4] Though astronomically expensive, this project is technically feasible because wealthy patrons will gladly pay for these condos to obtain a residence that has unobstructed views of Manhattan on all sides. Even though the construction of 432 Park Avenue has yet to be completed, every unit has already been sold prior to occupancy, including the building's $95 million penthouse. Rafael Viñoly, is the architect of 432 Park, has expressed that the design of luxury residential towers requires a thorough knowledge and understanding of Manhattan's real estate market. With regard to housing in Manhattan, he was quoted stating that "there are only two kinds of markets, ultraluxury and subsidized housing."[5] There may not exist a clearer indication of Manhattan's economic disparity.

Even though these staggeringly expensive residences have no trouble being sold, there is a classic inherent contradiction to them. 2012 Census data has revealed that in the particular area Midtown Manhattan where Slim towers are being constructed (from 56th Street to 59th Street and from 5th Avenue to Park Avenue) over half of all residences are vacant for at least 10 months out of the year.[6] Together the majority of the most luxurious and

1 Reference to Barclay's Skyscraper Index

2 Perspecta 47, MIT Press, August 22, 2014

3 Willis, Carol. Form Follows Finance. New York: Princeton Architectural, 1995.

4 Brown, Joshua. "Meet the House That Inequality Built: 432 Park Avenue." Fortune 12 Nov. 2014.

5 Ibid.

6 2012 Census Data

valuable condominiums Manhattan has to offer are essentially vertical ghost towns. Door buzzers and mail slots do not display the names of residents, and on average one third of these residents are occupied at any given time. The simple truth is that these residences are not purchased to be lived in. They are instead purchased as investments to be sold later for a rate of profit, similar to the way one buys and sells stocks. Over the next 4 years, Manhattan will give rise to several luxury condo towers, including 432 Park Avenue, 111 West 57th Street, and 225 West 57th Street. Even though these towers will not be completed until the year 2018, some of their condos have already been sold for over $90 million.[7] The construction of 432 Park Avenue is nearly complete, and its silhouette has already asserted its dominance over the skyline of New York City, and is clearly visible from any of its five boroughs.

What complicates things considerably is that in order for these towers to exist developers must buy out as many air rights as possible from neighboring sites and properties in order to build them. Consequentially this leaves far less property available for Manhattan to grow and prosper as a whole. Upon first glance Slim towers appear to be harmless because they occupy such small sites and properties, however in order to become as tall as they are it is essential to buy as much air rights as possible from anyone that is willing to sell. In essence, the rapid development of slim towers has the potential to cripple the architectural aptitude of Manhattan in years to come.

7 "The Accidental Skyline." The Municipal Art Society of New York. December 2013.

MANHATTAN UNDER SIEGE

The astronomical value of these residences can be difficult to accept or comprehend, but what is truly troubling concerns the way these condos are purchased, and more importantly, the identity of their owners. Within Manhattan's high-end real estate market, the concept of hidden ownership is becoming increasingly accepted as commonplace. Most wealthy patrons prefer to keep their identities unknown when purchasing luxury condos. Often times, buyer's signatures are either illegible or left blank on deeds, or they are signed by lawyers or other representatives. In addition, these buyers create shell companies or LLCs in order to help further conceal their identity from property managers and public record.

This diabolical system allows wealthy investors (either foreign or domestic) to move huge amounts of nearly untraceable money by using fake companies in order to avoid taxes and conceal assets. In 2014, 54% of all residences in Manhattan valued at $5 million or more (which encompasses nearly all luxury real estate) were purchased by shell companies.[8] In addition to Manhattan, other financial hubs around the world, such as London and Singapore, are experiencing similar conditions of intense influx of foreign capital and investment, which in turn may be leading to issues of social, political, and economic inequality.

Why are so many shell companies purchasing high-end real estate, and not simply investing money in banking systems? The answer is simple: banks in the United States are required to conduct thorough background checks to ensure they are not unknowingly fostering criminal activity at any capacity. In addition, they also monitor accounts in order to detect any kind of suspicious behavior. There are no such laws when it comes to real estate. When condos are purchased for tens of millions in cash upfront, no questions are asked. At one time it was proposed by the Justice Department that a portion of the Patriot Act of 2001 include matters of real estate investigation, however this was highly disputed and eventually dismissed because of claims that it would be harmful to the economy, and that money-laundering schemes involving real estate were not nearly as likely as other types of financial assets.[9]

8 "Towers of Secrecy." NY Times, Louise Story, Stephanie Saul, Feb. 7, 2015.

9 Ibid

Recently it has been discovered that a handful of condominiums owners in the Time Warner Center have been connected linked to a wide range of illicit activities, including links to organized crimes, ponzi schemes, financial fraud, housing fraud and environmental violations. Many of these cases have included wealthy foreign investors, some of the most notable cases include Vitaly Malkin (former Russian senator), Dimitrios Contominas (Greek businessman), and Wang Wenliang (Chinese businessman and contractor). Within the Time Warner Center alone, four condo owners have recently been arrested, and another four face fines or penalties for illegal activities. Several more are subject to government inquiries globally, either as individuals or as heads of companies or corporations.[10]

It is important to note that not all shell companies are concealing fraudulent or criminal endeavors; many of them exist simply to conceal the identity of the buyer. Nevertheless, there remains a negative connotation attached to shell companies because the sole reason they exist is to conceal information. One would think that New York City officials would try to combat this network of invisible illicit investment because of so many documented cases of criminal activity, however it is entirely the opposite: they encourage it. This seems extremely contradictory considering New York county already has the highest gap

10 Ibid

between rich and poor of any county in the United States. Of Manhattan's entire population, the wealthiest 5% of all residents (average annual income of $864,394) earns 88 times more than Manhattan's poorest 20% (average annual income of $9,822).[11] In addition, UNHW (Ultra High Net Worth) rankings indicate that there are 8,655 full-time residents of Manhattan who's collection of assets and wealth exceed $1 million.[12] It would seem the last thing Manhattan would want to would be to welcome with open arms all of the world's billionaires. New York City provides tax inactivation for both developers to build condo towers and for foreign investors to purchase them.[13] Before leaving office in 2013, Mayor Bloomberg addressed the matter, stating that "if we could get every billionaire around the world to move here, it would be a godsend."[14] All that matters to the eyes of government figures and policies regarding high-end real estate in Manhattan is that as much capital as possible is being injected into the economy.

Throughout Manhattan's history there have been several examples of intense and concentrated financial influx that are not too dissimilar from the current Slim phenomenon along West 57th Street. Throughout the 19th century the the world's millionaires purchased block-wide mansions along Fifth Avenue. During the 1980's, which the Skyscraper Museum has deemed to be the beginning of New York City's "Condo Craze," Manhattan saw an influx of wealthy foreign (mostly Arabic and Japanese) and domestic buyers, who purchased luxury condos in buildings such as Trump Tower and CitySpire.[15] It was during the 1980's that the idea of the residential tower was born. Slim towers represent an inevitable evolution of residential towers as a sub-typology of the American skyscraper, where feasibility, structure, and materiality are being pushed to absolute extremes.

11 Manhattan, NY. City-Data.com

12 Brown, Joshua. "Meet the House That Inequality Built: 432 Park Avenue." Fortune 12 Nov. 2014.

13 "Towers of Secrecy." NY Times, Louise Story, Stephanie Saul, Feb. 7, 2015.

14 Ibid

BIGNESS VS. SLIMNESS

From the outside these towers exhibit prominent skinny figures that have become fetishized not only as marvels of engineering, but also as symbols of unattainable riches and prosperity. They become instant momuments to the rise of the world's billionaires. The idea Slim towers acting as symbols of economic disparity can be unsettling to most, however the astonishing formal effects of skinny skyscrapers are impossible to miss. They possess certain qualities that overwhelm observers because of their colossal scale and their impossibly thin proportions. Their posture is one that suggests a certain greatness that defies logic and calculation. These towers are composed in such a way that through mass repetition of their floors and facade systems, they invoke a strong sense of the infinite, making Slim towers directly comparable to Rem Koolhaas's theories regarding Bigness.

Here it becomes essential to determine if Slimness and Bigness can be considered equivalent, and if not, which one will trump the other. Koolhaas argues that there are five main factors which contribute to the classification of certain pieces of architecture as Big Buildings. He outlines a variety of different qualities that Big Buildings must embody, such as massive scale, mechanized circulation, large floor plates, urban impact, and deliberate deviance from their respective contexts.[16] Formally Slim towers surpass the accepted critical mass of typical buildings in Manhattan, although there are many buildings in Manhattan that could easily fall under the category of Bigness. They of course rely on mechanical connections because of their immense height, which supports the notion that Slim towers ought to be considered Big Buildings. For Koolhaas, the incorporation of technological aspects in architecture is critical, and is evident in his inclusion of both the elevator and escalator as two of the fifteen elements of architecture exhibited at the 2014 Architectural Biennale.[17] Without technological advancements in architecture, neither Big nor Slim buildings would be possible.

The size and proportion of Slim buildings in tandem break the accepted formal composition of Manhattan, which is largely driven by height limitations and FAR restrictions. The compositional impact of Slim towers within the context of Midtown Manhattan are at the same time both magnificent and unsettling, and far surpass any assessment of their functional qualities. The arrogance of their posture suggests ethical consequence is of no concern whatsoever – or as Koolhaas would say: "fuck context."

Where Slim towers diverge from Koolhaas's definition of Bigness is that while they are massive in scale, they have incredibly small floor plates. This leaves no room for what Koolhaas would describe as "an accumulation of mysteries" to occur.[18] The definition of Bigness outlines that once the distance between facade and core becomes large enough, a building has potential to be labeled as a Big Building, because the facade can no longer indicate the

15 Adler, Jerry. "The High Life." Architectural Record 1 May 2015: 150-53.

16 Koolhaas, Rem. Small, Medium, Large, Extra-large: Office for Metropolitan Architecture, Rem Koolhaas, and Bruce Mau. 2d ed. New York, N.Y.: Monacelli, 1998.

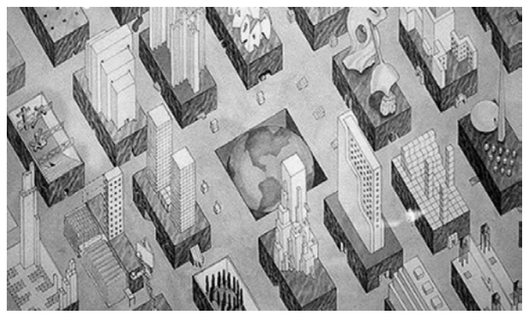
17 Koolhaas, Rem. Elements. Venice: Marsilio Editori Spa, 2014.

18 Koolhaas, Rem. Small, Medium, Large, Extra-large: Office for Metropolitan Architecture, Rem Koolhaas, and Bruce Mau. 2d ed. New York, N.Y.: Monacelli, 1998.

program it houses within.[19] In the case of Slim towers, the distance between facade and core is comparable to the walk from living room to kitchen. In essence, Slim towers have nothing to hide, nor is this their intention.

Big buildings are entirely enigmatic with regards to programmatic structure and sequence, while Slim buildings have no choice but to reveal their program to all because there is simply no room for any alternative. Slimness, unlike Bigness, makes it altogether impossible for any programmatic amalgamation to occur. This critical difference proves that Slimness must therefore be something altogether separate from Bigness, even though many of their defining qualities often coincide. Slimness of course references Bigness, but Bigness may not necessarily acknowledge Slimness.

DELIRIOUS NEW YORK



Since Slimness has been defined as a sort of parasitic offspring of Bigness, it seems both appropriate and necessary to determine the role Slimness can play in relation to Koolhaas's *Delirious New York*. Since this retrospective manifesto was written during the 1970's – a period of great economic uncertainty and instability – it seems only fitting to speculate on how Slimness would affect this argument. Many of Koolhaas's theories from *Delirious New York* are derived in some way from Manhattan's organizational grid structure. Ultimately no matter how buildings of Manhattan are conceived and constructed they must always abide to the constraints of the grid, since it determines what Koolhaas describes as the "maximum unit of urbanistic ego."[20] Since topography is essentially a non-issue for most buildings in Manhattan, the grid becomes Manhattan's single most constraining legislative principle. Within the limitations of this gridded condition, the architecture of Manhattan has been forced to pack as much program as possible into a finite and contained unitized block system, which inherently causes the condition of Manhattan's 'culture of congestion.'

Manhattan's grid structure is the first axiom of three that contributes to Manhattan's urbanistic tendencies, or 'Manhattanism.' [21]The second is a sort of blurring of the relationship between interior and exterior, such that as buildings become larger and contain more programmatic elements, the exterior becomes less capable of representing what the purpose or function of the building is. Koolhaas refers to this as 'Lobotomy.' [22]The third refers to the separation and diversification of different floors within skyscrapers, and is an interior condition which divides programs within a skyscraper into individual autonomous elements. This allows for seemingly unrelated program elements to be stacked next to or on top of each other, and can allow for unintended or unforeseen events to take place between them. Koolhaas refers to this as 'Schism.'[23] This division between exterior and interior causes formalism and functionalism to coexist and operate completely independent of each other. When confronted with Slimness, these three urbanistic drivers are called into question.

Slim buildings do of course acknowledge Manhattan's grid – as all of Manhattan's buildings do – however they occupy such a small percentage of a city block that it is difficult to assert in the case of Slimness that the grid has significant influence. Slim buildings do not occupy entire city blocks; they occupy fractions of residual spaces that were once thought to be undesirable, impractical or otherwise improbable. These sites can be found in the aftermath of Bigness, and are sites of which the immense appetite of Big Buildings failed to fully consume. The counterarguments of Slimness to Koolhaas's notions of the 'Lobotomy' and the 'Schism' are similar to its counterarguments to Bigness. Slim buildings have such small floor plates that it is not plausible that program housed within can be autonomous elements because of the stringent programmatic limitations of Slimness.

Outside of Koolhaas's three axioms of Manhattanism, he presents from a Surrealist perspective how skyscrapers came to be, and refers to this concept as the 'Needle and Globe.'[24] He presents case studies for each of these concepts in order to describe two contrasting ends of Manhattan's formalist vocabulary. They refer to opposite extremes of what buildings in Manhattan can strive to achieve. In the case of the Needle, it is a tall, thin, and minimalist structure that satisfies the human desire to rise above the city and observe it from an unobstructed vantage point. The Needle is essentially a building with no interior, and represents the tallest and skinniest aspirations a building can have.[25] Koolhaas relates the concept of the Needle to the Latting Tower, which was an observation tower constructed for the 1853 World's Fair in New York.

Contrary to the Needle is the Globe, which is an all-encompassing structure that houses a maximum interior volume with minimal external skin. The goal of the globe is to contain as much program and activity in one volume with as little external surface area as possible.[26] Koolhaas relates the concept of the Globe to the Manhattan Crystal Palace, which was also constructed for the same World's

19 Ibid

20 Koolhaas, Rem. Delirious New York: A Retroactive Manifesto for Manhattan. New ed. New York: Monacelli, 1994.

21 Ibid

22 Ibid

23 Ibid

24 Ibid

25 Ibid

26 Ibid

Fair exhibition as the Latting Tower. The concept of the skyscraper is a marriage or hybridization of Needle and Globe, and seeks to combine the thrills, pleasures and wonders of rising high above the city with the convenience, efficiency, and variety of amenities housed within one structure. The Needle and Globe symbolically represent a certain duality that all skyscrapers possess, which as a concept fits nicely with the ideals of Salvador Dali and of Surrealism (and more specifically with Paranoiac-Critical Method) because of the ability of skyscrapers to invoke the capacity of the human mind to perceive two contradictory images simultaneously.[27]

The relationship between the Needle and Globe becomes a bit shaken when Slimness is added to the mix. Slim buildings tend to lean almost entirely towards the Needle end of this spectrum. The sole reason luxury condominiums housed within Slim towers are sold in the tens of millions to the wealthiest of real estate clientele is because they offer in most instances unobstructed views of Central Park and the rest of the island. Considering some Slim towers of Manhattan will have a slenderness ratio of 1:20 or greater, Slimness is essentially the epitome of the Needle. Slimness makes very little effort to accommodate notions of the Globe at all. Slim buildings are comprised almost entirely of luxury condominiums, and have no ulterior programmatic concerns. The proportions of Slimness do not lend themselves to efficiency or to variety. In most cases the core of Slim buildings can take up half a typical floor plate, making program more of an afterthought than a serious priority.

Ultimately what causes Slimness to fail to comply with Koolhaas's Delirious New York is that Slim buildings as they are currently understood offer absolutely no potential for "cross-programming" to occur. Since Slimness only exists to house luxury condominiums, one would not by chance discover an unexpected program such as a running track. Because of this fact Slim buildings contain a certain untapped potential which has yet to be fully explored.

CONCLUSION

The emergence of Slimness in Manhattan is evidence that a typological paradigm shift is currently in motion. In a much broader sense, Slimness is bringing to light just how much control finance exercises over architecture in all aspects of the profession. Slimness is proving that high-rise architecture in Manhattan is becoming increasingly oppressed as a result of the developer driven mindset operating within the "confines" of New York City's negligent real estate policies. If left unchecked, this oppression will inevitably worsen until finance ruptures the urban tissue of Manhattan beyond all repair. When asked to evaluate the success of his project at 15 Central Park West in a recent issue of *Perspecta*, Robert A. M. Stern first responded in financial terms, stating that the apartments in his project were priced and sold among the highest in New York City, both in terms of price per unit and price per square foot.[28] In the same breath (and in contradictory fashion), Stern states that there is a negative stigma associated with being "the developer's architect," and cited I. M. Pei's decision to work for William Zeckendorf following Pei's graduation from Harvard as a point of criticism.[29] Since Manhattan's luxury condo market is almost entirely developer driven, what does that say about the architects who do their bidding? Despite the imminent threat finance poses to Manhattan, the emergence of Slimness may offer a kind of untapped potential that could save the architecture of Manhattan rather than destroy it.

The engineering and technological achievements of Slimness are feats that are difficult to ignore. 111 West 57th Street, which will finish construction sometime in the year 2016, will become the world's most slender building with a height to width ratio of 23:1. Slim towers also propose solutions to issues that have persistently plagued the history of architecture in Manhattan, such as access to air, views, and sunlight for all its citizens. It is unfortunate that these privileges exist only for a select few wealthy billionaires. What is perhaps most troubling about this financial pandemic is that there is very little being done to combat this issue publicly or politically. David Harvey expresses a similar concern as he reflects on the aftermath of the gentrified post-Haussmann Paris, and states that "once the city is imagined by capital solely as spectacle, it can then only be consumed passively, rather than actively created by the populace at large through political participation."[30]

In order to both analyze and criticize the polemical discussion that Slimness has brought into focus, four hypothetical projects are proposed as ironic and speculative scenarios that attempt to depict the true nature of Slimness as it exists today. They should not be evaluated as literal projects that are based on traditional architectural norms and contingencies, but rather as metaphorical projects that help to make obvious the ways in which architecture is unknowingly (or perhaps, knowingly) exploiting Manhattan's real estate market. It also considers the inverse possibility that Manhattan's real estate market is actually exploiting architects. The object of these projects is not to propose solutions for these issues, but rather to exaggerate them to a point

27 Ibid

28 "Interview with Robert A.M. Stern." Perspecta: the Yale Architectural Journal 47. New Haven: The MIT Press, 2014.

29 Ibid.

30 Harvey, David. The Political Economy of Public Space. In S. Low & N. Smith (Eds.), The politics of public space. New York: Routledge, 2006.

where they become playfully obvious. In order for one to fully understand the true meaning of this thesis proposal, it is essential to understand how the proposals should be read.

The first project that comes to mind when thinking of architectural proposals that have similar ambitions to this thesis is, of course, Koolhaas's Delirious New York. Rem's manifesto is concluded by presenting four hypothetical scenarios that together represent a "fictional conclusion," and "an interpretation of the same material, not through words, but in a series of architectural projects."[31] The four scenarios Koolhaas presents are responses to specific elements of his manifesto for Manhattan, and are meant to serve as sources of inspiration for curing Manhattan of its "self-imposed unconsciousness."[32] These projects are not solutions in themselves, but rather are ironic scenarios that he hoped would help inspire the next stage of evolution for Manhattan's Culture of Congestion. The projects Koolhaas proposes all have a certain level of fuzziness or ambiguity, and are presented in sequence with their own whimsical renderings and descriptions. Ultimately these projects offer very little resolution or explanation as to how they would come to exist, or how they could potentially coexist, and nor should they. What makes Koolhaas's fictional conclusions successful is that they all provide some level of insight as to how architects can begin to think differently about Manhattan's urbanism.

Koolhaas took a similar approach to his 1972 Architectural Association thesis (in partnership with Madelon Vreisendorp, Elia Zenghelis, and Zoe Zenghelis), entitled *Exodus, or the Voluntary Prisoners of Architecture*. The project was not meant to be digested as a literal proposition but rather as a symbolic response to issues alluding to the context of Cold War West Berlin. It was a series of eighteen drawings, watercolored renderings, and collages, which were accompanied by texts to explain each piece of the project. Rem's thesis, of course, relates to an entirely different set of issues, but the spirit of the project is quite similar. One particular passage from the prologue of the project resonates nicely with the ambitions of this thesis exploration: "as so often before in this history of mankind, architecture was the guilty instrument of despair."[33] Perhaps it was the gallery label from the project's exhibition at MoMA that described it best, which stated that the project was "intended to be read simultaneously as a factual and fictional scenario."[34] Rem's project created a scenario wherein the citizens of London were considered to be voluntarily enslaved by architecture through politics; by contrast, this thesis creates a scenario wherein the citizens of New York City are voluntarily enslaved by finance through architecture.

Another project that has a similar sort of polemical ambition as Rem's fictional appendix is Steven Holl's *Bridge of Houses*, which was published in 1981 as part of the Pamphlet Architecture series. By definition all submissions to this publication in one way or another "criticize, question, and exchange views" within contemporary architectural discourse.[35] Many of them, such as Holl's *Bridge of Houses*, are speculative in nature, and were not conceived in order to be constructed, but rather to serve as an example of how architects can begin to think differently about (in this case) hybridized forms, disused structures, and urban pattern reinforcement. In this submission Holl creates a speculative proposition to combine an abandoned bridge running through West Chelsea (which also happens to be the same bridge that became the High Line in 2009), with formation of different kinds of houses arranged in sequence. The houses were arranged in a regular pattern along the bridge to establish a sequential connection to Chelsea's existing urban fabric. Holl assigned each house with its own set of distinguished descriptions, drawings, and physical characteristics. In addition, each house had its own title, such as 'The House of the Doubter,' or 'The Riddle,' or 'The House for a Man without Opinions.'[36] It is the combination of Holl's typological experiments and his creation of hypothetical scenarios for occupation that makes his project particularly relevant to this thesis.

Slim buildings are currently driven solely by financial concerns, but what if that were subject to change? What if Slimness could somehow exist without solely economic intention? Suddenly thousands of residual and abandoned properties throughout Manhattan would have new meaning, purpose, and potential. In order for this hypothetical scenario to be achieved, Slimness must first be liberated from the invasion of foreign and domestic wealth, capital, and scandal. Like all successful architecture it must be allowed to equally balance economic feasibility with cultural responsibility. Only when Slimness can be allowed to find this critical balance can the true potential of this kind of architecture be realized.

31 Koolhaas, Rem. Delirious New York: A Retroactive Manifesto for Manhattan. New ed. New York: Monacelli, 1994.

32 Ibid

33 Koolhaas, Rem. Small, Medium, Large, Extra-large: Office for Metropolitan Architecture, Rem Koolhaas, and Bruce Mau. 2d ed. New York, N.Y.: Monacelli, 1998.

34 "75 Years of Architecture at MoMA." Museum of Modern Art, 2007.

35 Holl, Steven. "Bridge of Houses." Pamphlet Architecture 1-10. Vol. 1. New York: Princeton Architectural, 1998.

36 Ibid.

THE KNOT

The Knot is Manhattan's most expensive and secure storage facility, and is regularly utilized by the world's wealthiest patrons. Each floor of the Knot can hold as many as 16 standard shipping containers at any given time. Four cranes are perched on the roof of the Knot, and are used to regularly shuffle the building's cargo in accordance with the needs and desires of those who own the storage units themselves. The four corner column bays are devoted to accommodating the weight of the cranes and the wide range of live loads that could occur at any given time, and are reinforced with diagonal bracing. The shipping containers are slotted into the Knot's unique façade system, which means that its facade constantly changing.

Most individuals who own storage units within the tower place great emphasis on secrecy and anonymity with regards to their possessions, and often at times they will elect to pay a higher premium to ensure that their cargo units can be omitted from the Knot's screening procedures. This usually leads to wild speculation regarding the contents of the storage units. Some say that the units contain endangered animal species, black market goods, military weapons, and even victims of human trafficking, although these allegations are seldom confirmed. What is certain is that no one knows for sure what the storage units contain because their owners go to great lengths to conceal their property, whatever it might be.

With regards to security, the Knot's storage units have proven to be sound investments. Its storage and retrieval system is unique because units are stored vertically rather than horizontally, and are suspended hundreds of feet in the air. Of course the drawback of this system is that if any sort of crisis were to occur that would either restrict access to the storage units or disable the storage retrieval system, the storage units would be trapped in the sky for an indeterminate amount of time. In effect, these storage units are at the same time both extremely secure and vulnerable. Whatever risks are endured in purchasing storage units within the Knot are considered to be offset by the levels of security and anonymity the facility can provide.

Formally, the Knot has been realized as a manifestation of the inherently symbiotic relationship between finance and architecture, and the never-ending struggle between the two. Somewhere in the middle, these two sides arrived at some kind of forced compromise, which has resulted in a twisted contorted bulge, for which the building gets its name. In the end, finance can exist without architecture, but can architecture exist without finance?

THE JESTER

For most residents of New York City, the primary leisure and entertainment destination historically has been none other than the famous Coney Island. Nowhere else in this metropolis can residents have better access to Ferris wheels, roller coasters, carnivals, and boardwalks. As for the world's billionaires, they prefer a much more exclusive and lavish venue for their amusement park, and it is situated among the most expensive residences Manhattan has to offer. Given the recent trends in luxury real estate, can Manhattan be seen as anything other than a playground for the world's wealthiest benefactors? For a select few rich patrons, The Jester serves both as the most expensive and subsequently the most exclusionary amusement park the world has ever seen. In essence, you must be worth this much to ride the roller coaster.

The Jester has all the attractions, amenities, and programs that would be expected of a typical amusement park, and it is houses them all within the slender physique of the Slim skyscraper. Nearly every floor of The Jester houses its own unique attraction, including clubs, performances, games, rides, restaurants, and more! Several floors are intersected by the park's two Ferris wheels, both of which offer breathtaking views of Central Park and of the rest of the city. What is perhaps the most dazzling spectacle The Jester has to offer is its fifty story roller coaster, which snakes in and out of the building in a whirlwind of excitement and spectacle. There are even some original aspects of Coney Island (some purchased and some replicated) that can be found throughout the tower, including signage, attractions, and major themes. Having all of these attractions together in one of the tallest and skinniest buildings in Manhattan is, of course, an incredibly costly investment. To offset the cost of construction and maintenance, the price of each attraction is expectedly staggering. What most city residents hope to make in a year wouldn't be enough to even cover The Jester's admission fee. Visitors can expect to spend more in one day than some individuals will spend in an entire lifetime.

The Jester serves as a mockery and as a constant reminder to all residents of New York City that no matter how hard they work or how many hours they put in, it will never be enough to bridge the cataclysmic gap between rich and poor. Herein lies the true meaning behind The Jester, or the Joker as it is sometimes called, or the Habitual Fool. Those who frequent The Jester represent another stratosphere of socioeconomic status, far above even what New Yorkers consider to be the upper class. It is a kind of wealth that is beyond all reason, comprehensions, and understanding. To the rest of New York City this obnoxious display of wealth is so demoralizing that it eventually becomes miserably humorous.

THE CAPTIVE

It would be naive to suggest that all investors involved in purchasing luxury condos are connected to criminal activity and financial fraud, however it would be just as naive to assume that all of them are innocent. In many cases, the purchase of luxury condos are directly linked to some sort of financial fraud as a direct result of Manhattan's shockingly loose policies regarding high end real estate. Many of these criminals are eventually unmasked, despite their lengthy efforts to conceal their identities through the creation of shell companies. For the wealthiest convicted criminals who have no other legal alternatives, The Captive provides one last safe haven.

Most luxury condos remain vacant for a majority of the year, however The Captive is for the most part at full capacity, and forcibly so. For a variable premium, the world's billionaires can choose to serve the entirety of their incarceration in their own luxury prison cell. The Captive forces its inmates to experience these luxury condos for what they really are, instead of viewing them as assets or physical bank accounts. They will see firsthand that their tens of millions of dollars has purchased them a residence that is comparable in size to that of a typical suburban home. For years they will admire the panoramic views of New York City through a set of prison bars. They will lounge in what would have been their throne room, and gaze out at the world that was almost theirs. They will have regulated group activities with other inmates, who always tell the same stories of how their empires came crashing down before them. One story after the next, the world's billionaires relive their triumphant achievements and their miserable failures. They pass around exposé pieces written about them in dated articles from New York Times. They share the names of their shell companies.

After years of reflection and self-loathing, the inmates begin to feel more and more trapped in the condos they once paid fortunes for. Every day it seems that the space between the exterior walls and building core is getting smaller and smaller. The ceilings don't seem as tall as they used to, and the once great views of the city now serve only as painful reminders that the rest of the world has no sympathy for the prisoners of The Captive. The inmates look out to other condo towers along the row, and they wonder if anyone in the free world feels as imprisoned as they do. They see endless stacks of condos that pile high into the sky, far away from the life of the ground, and begin to realize that being so far removed from the rest of the world is a kind of prison in itself.

The Captive brings to light just how unsuitable luxury condos can be for everyday living. It calls into question the divorce between expensive architecture and functional architecture, and how the architects of the world can allow for such a paradox to occur. Perhaps it is the architects of the world that are the true prisoners.

THE BULL

The harsh reality of luxury condos in Manhattan is that an overwhelming majority of them are not purchased to be used as residences. They are seen as investments, and are bought, sold, and traded in similar fashion to stocks. Perhaps it is time to consider calling a spade a spade. Manhattan's luxury condo market needs to be seen for what it really is: a stock exchange of real estate. The Bull is an architectural manifestation of this illuminating principle.

The Bull exists independently of the New York Stock Exchange on Wall Street, and is no way associated with purchasing shares of any legitimate businesses, companies, or corporations. The only stocks available for purchase on The Bull's trade floor are the stocks of the shell companies that are used in the purchase of Manhattan's most expensive condos. Investment experts and legal representatives are constantly buying and selling shares of these shell companies, which means they are essentially buying shares of condo units themselves. The majority shareholder of any given condo unit can change without a moment's notice, and the condos themselves can lose or gain value just as quickly. The relative value of each condo follows a prescriptive economic principle: the higher the condo, the higher the value. This should not serve as any indication that the value of each condo is fixed.

If there were to be a rapid influx of investment to any condominium (which is often the case), the relative price of all units above and below it must be adjusted accordingly, meaning that the value of each condo is in constant flux. As the value of each shell company changes, investors buy and sell shares to accommodate relative losses and gains.

While it is concerning that the relative value of shell companies can change suddenly and without warning, there are many other factors that need to be considered when purchasing stocks on The Bull's trade floor. Since the identity of the shell company's owners must remain anonymous at all times, trading at The Bull is an incredibly risky business venture. Not only are investors potentially at risk for losing huge sums of money, but they may be unknowingly contributing to criminal activity and financial fraud. Investors must also take into account how new condo developments and projects will impact the relative value of their assets. As more luxury condo towers are constructed, there will inherently be more luxury condos in the market, thereby making each unit less exclusive to a certain extent.

The Bull serves as a representation of the intense concentration of wealth and capital that is being pumped into Manhattan's real estate market from all corners of the world. It is a boastful reminder to the rest of New York City that its most luxurious and exclusive condos are nothing more than poker chips.

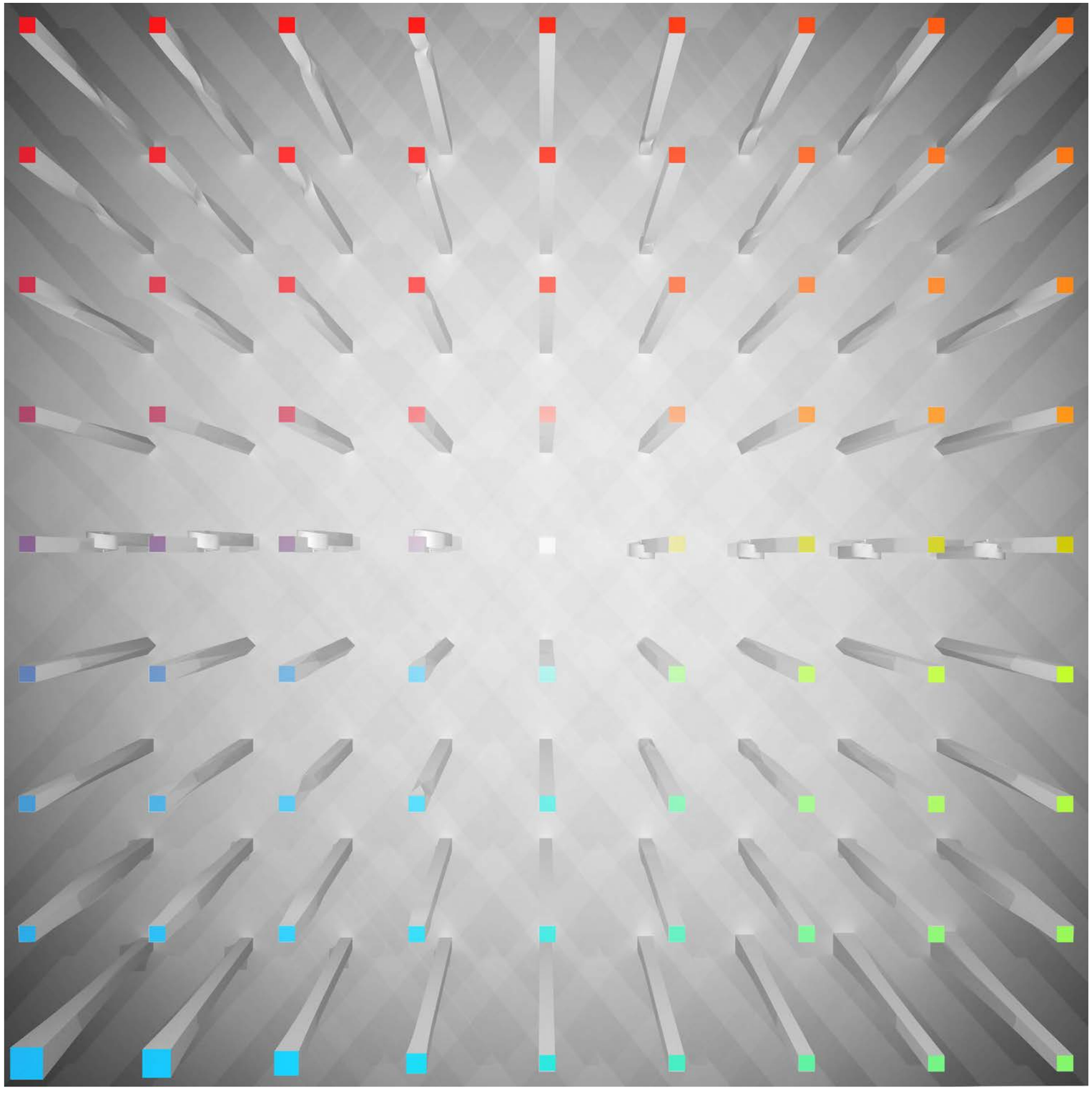
The Question of SLIM

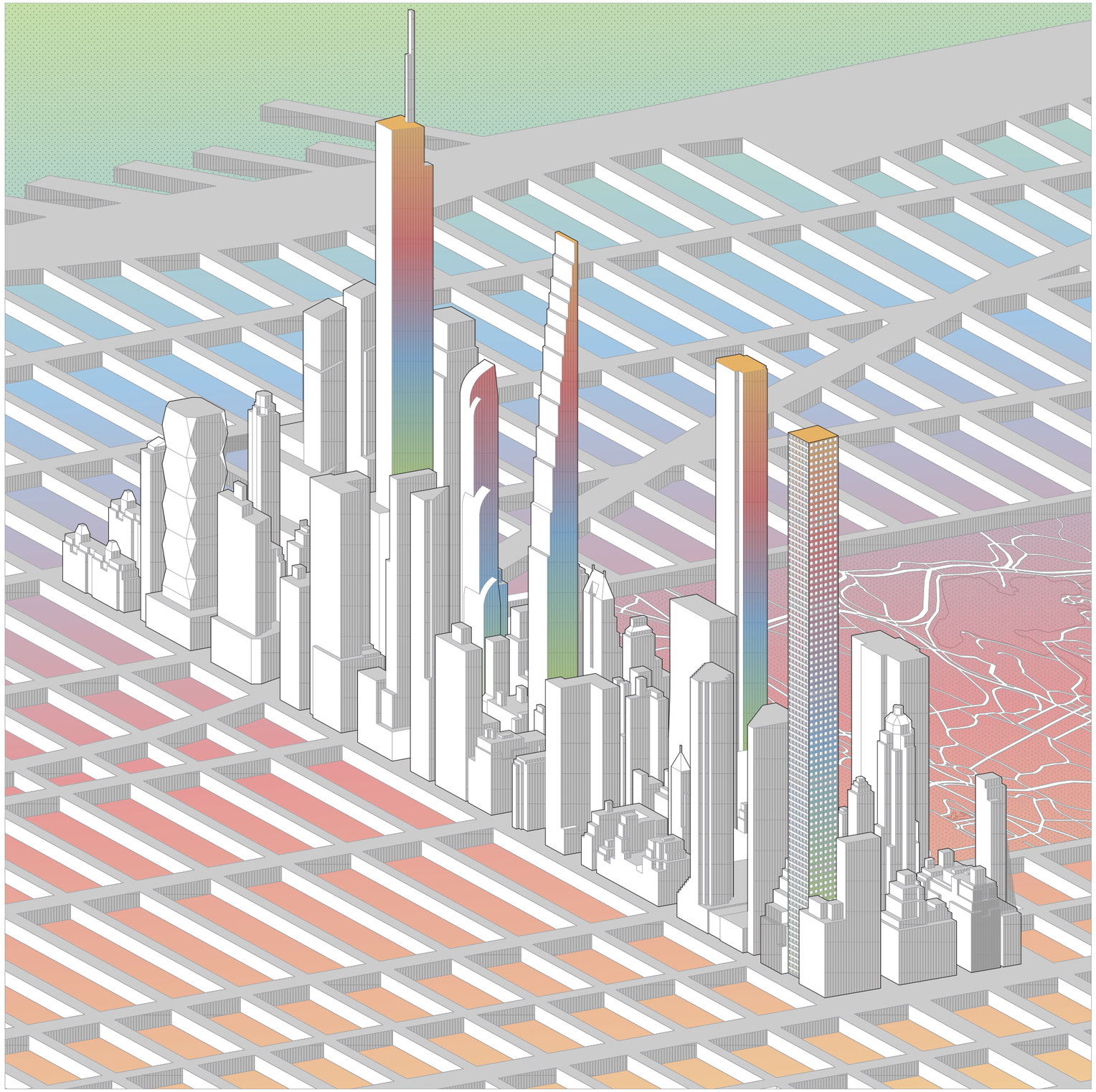
"We might consider how this astonishing unequal income has begun to take architectural form."
-Steven Holl

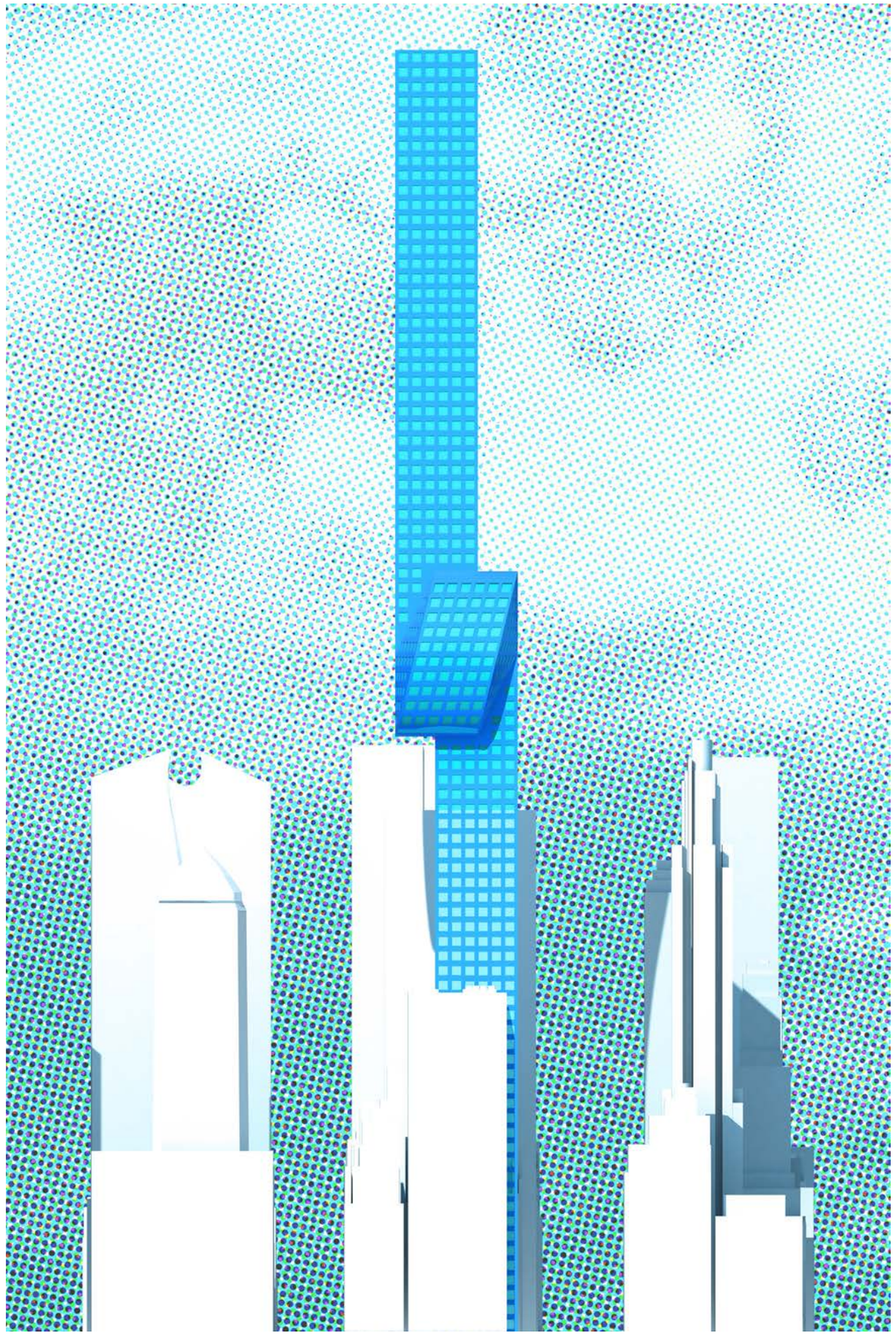
A Critical Look at Manhattan's Trend Towards Slenderness

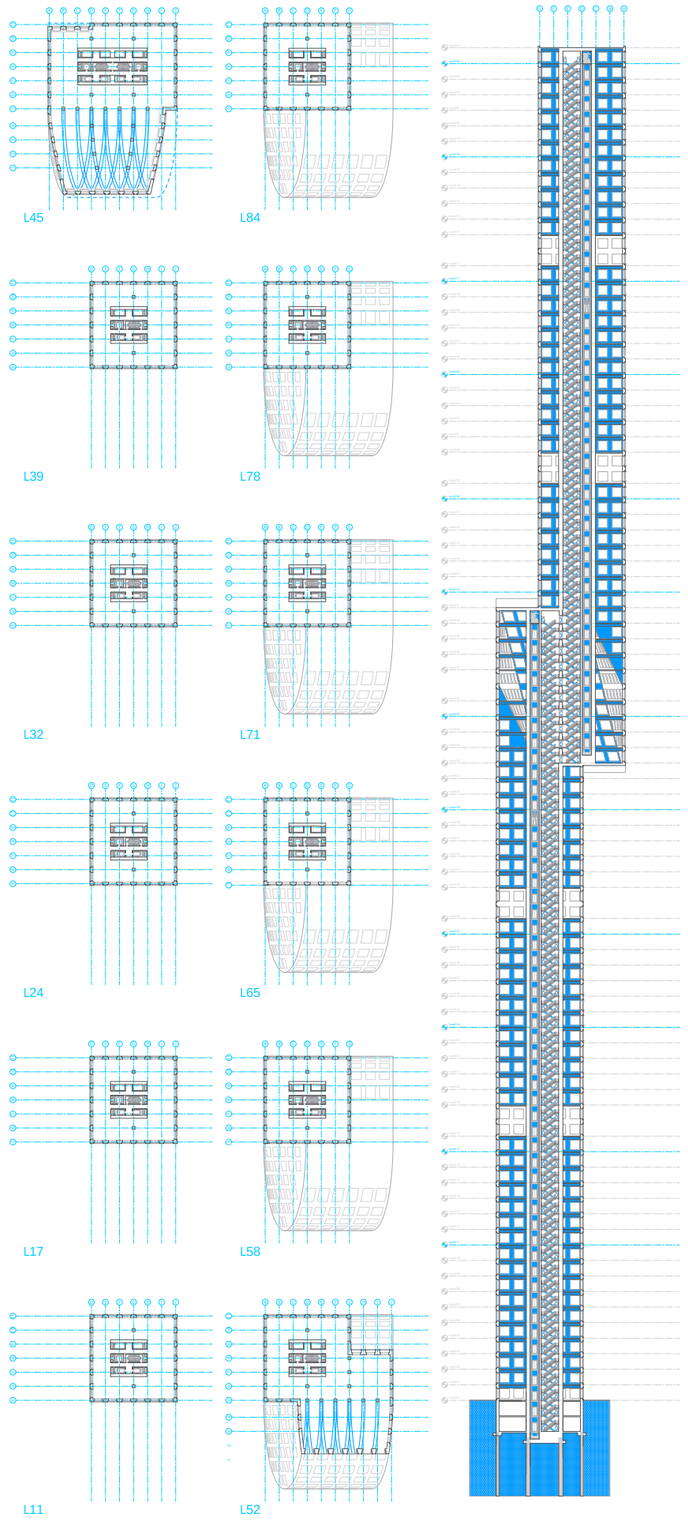
Contention:

I contend that the emergence of Slimness is evidence that a paradigm shift in the architecture of Manhattan is in motion. Slimness is an exploitation of architecture to a point where it is driven solely by finance, and serves as a physical manifestation of the growing gap between rich and poor. Slimness is an exception, an anomaly, an enigma, and a direct result of the inherently symbiotic relationship between architecture and finance.





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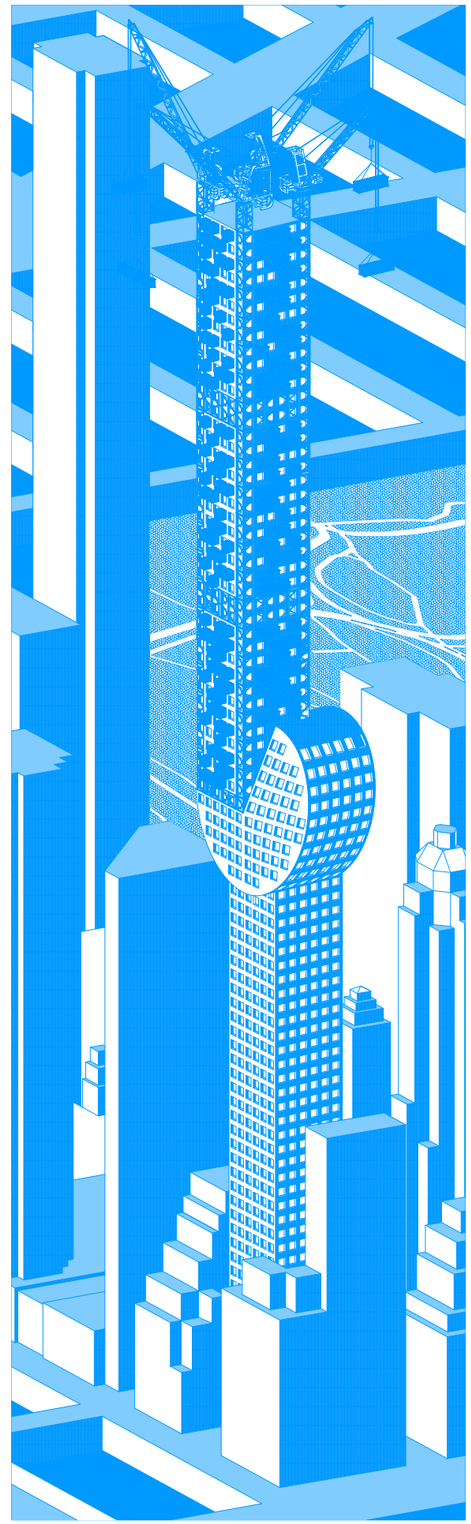
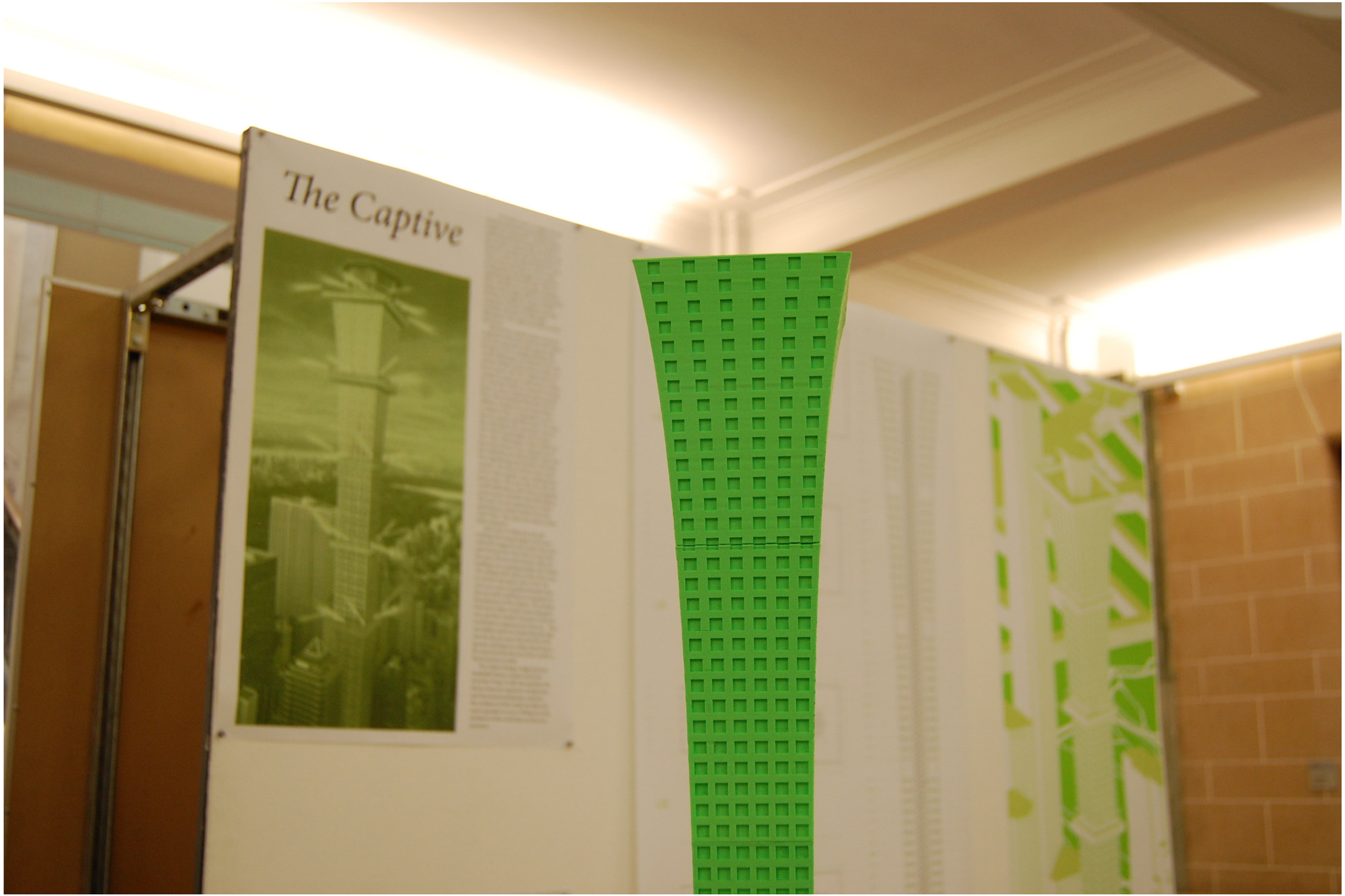
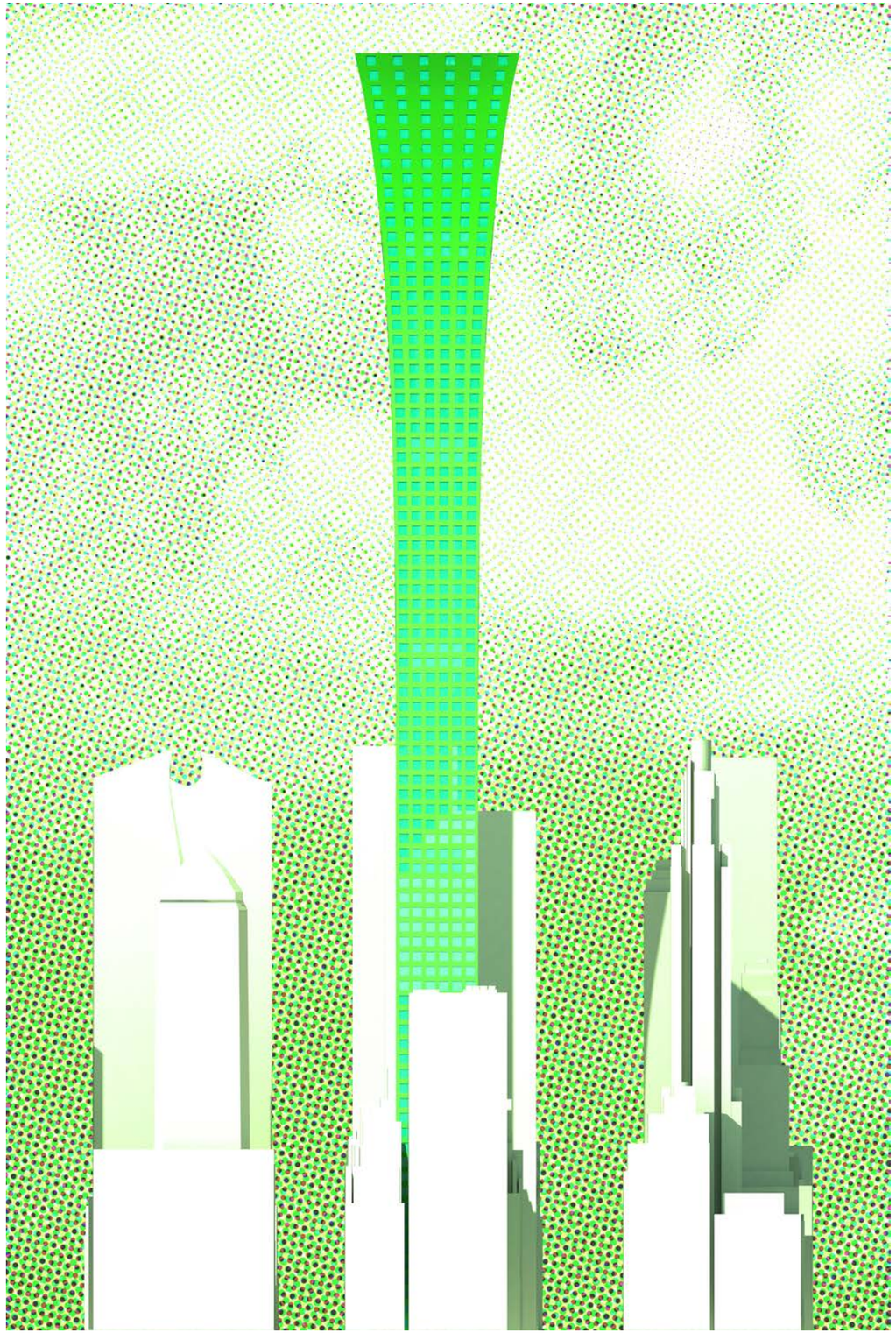
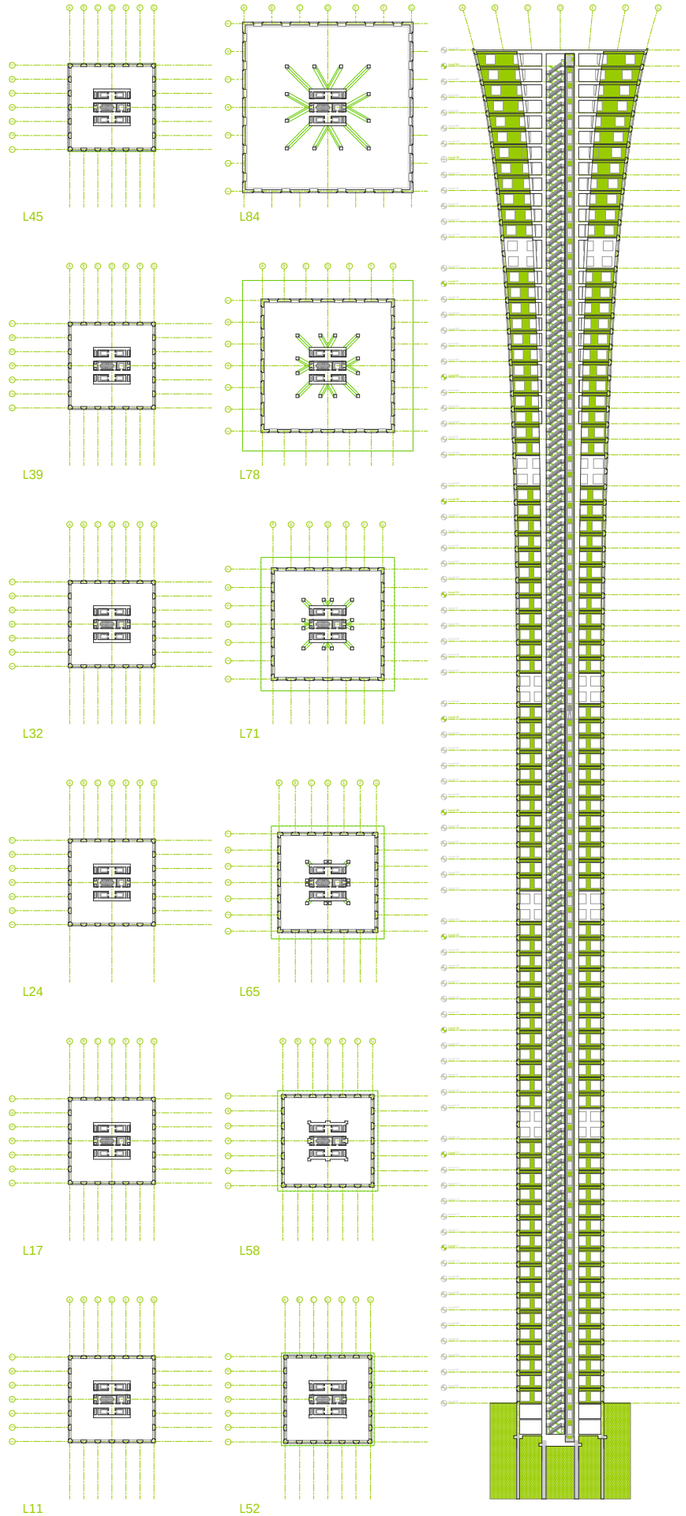



The Captive

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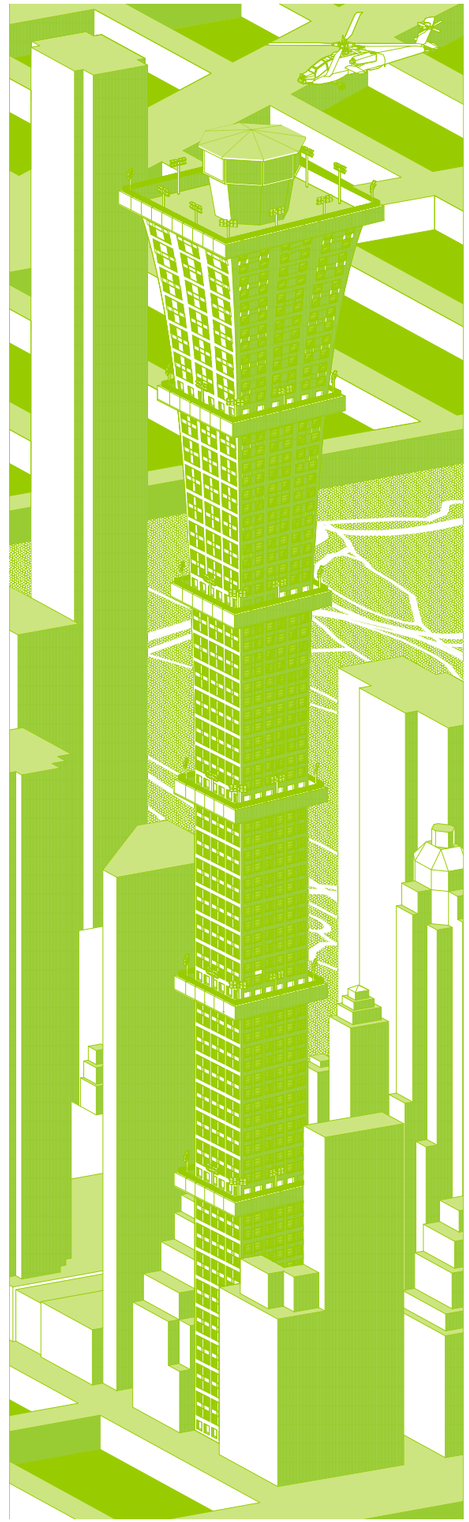


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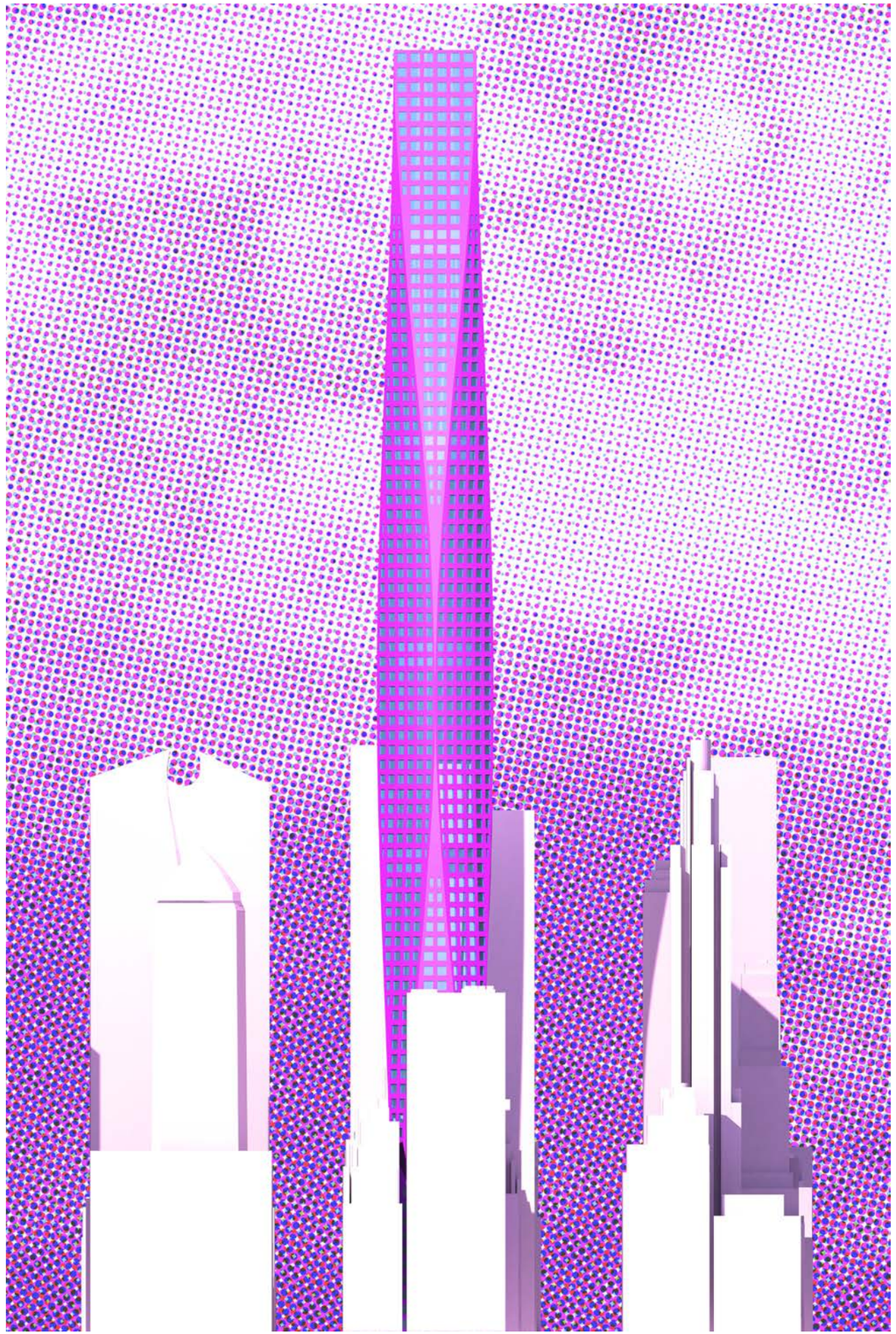

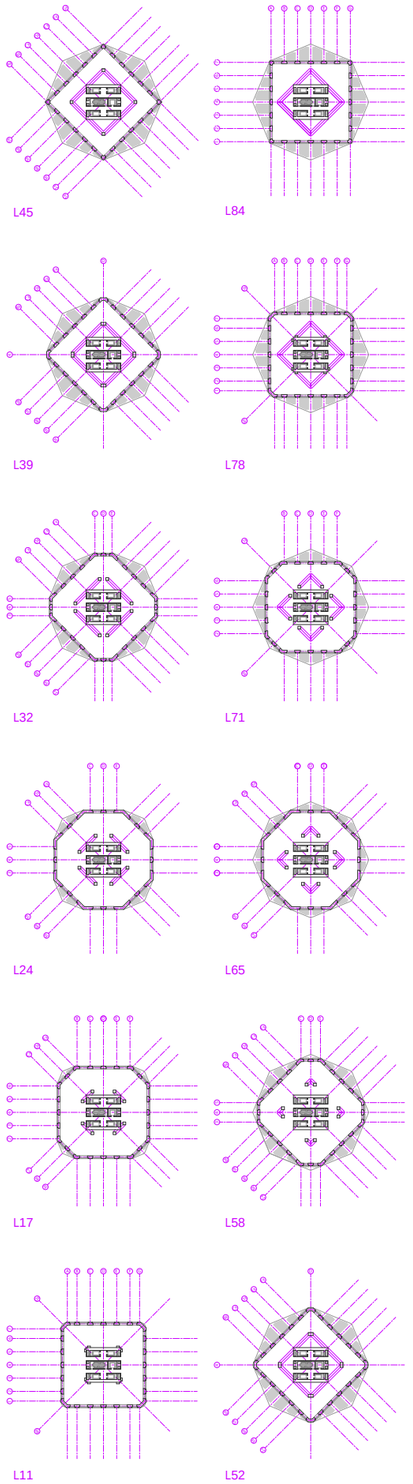
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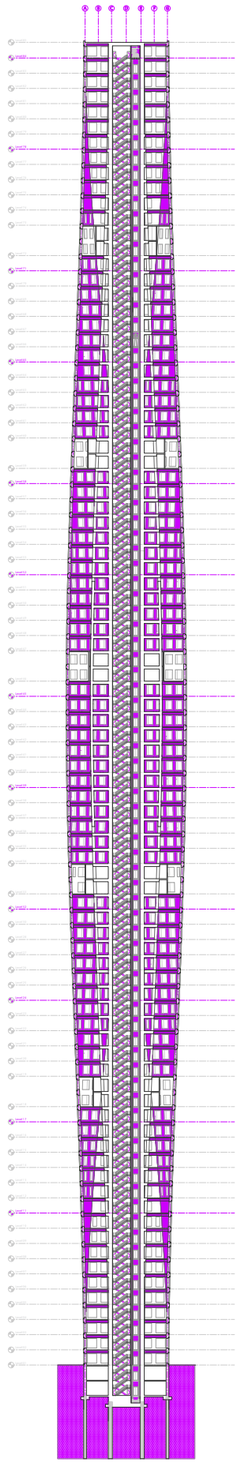
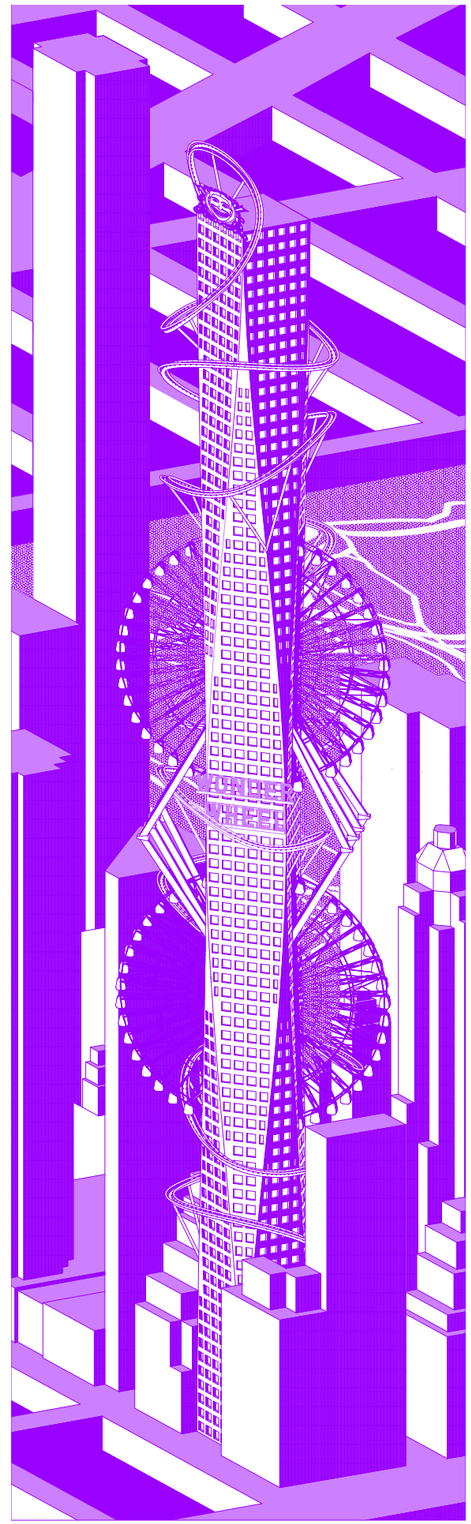
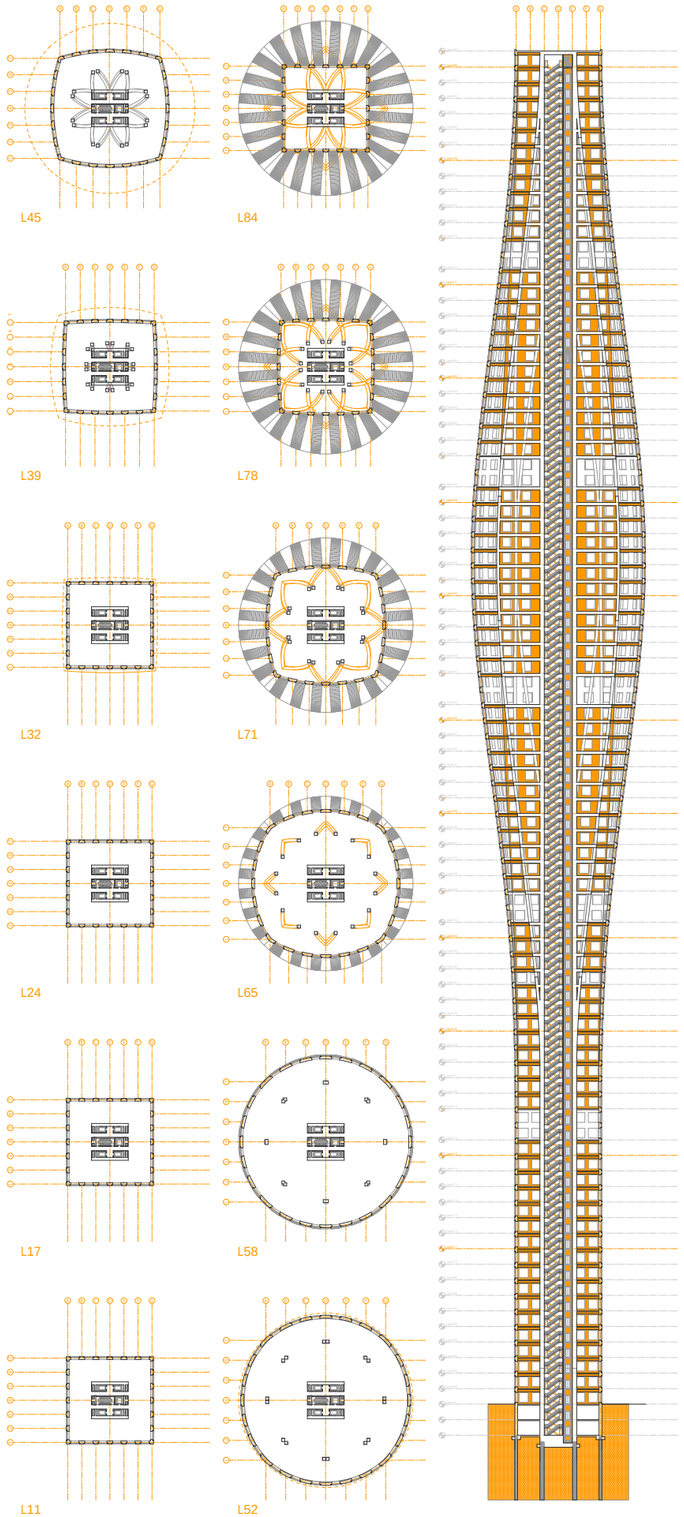





The Bull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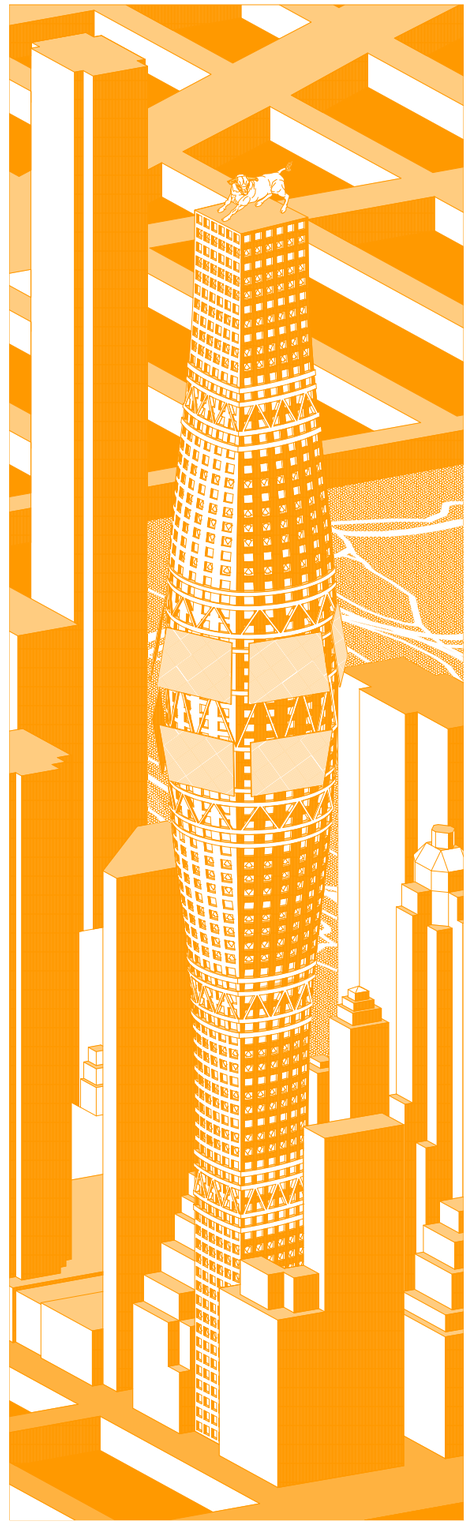


The Jester
The Knot


The Captive
EXIT